

AIRFIX magazine

December 1975
FOR PLASTIC MODELLERS
monthly 25p

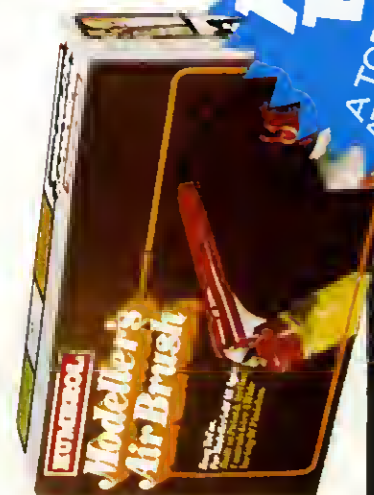


in this issue

MiG-21 MF 'Fishbed J' in 1:72 scale
Modelling the Duplex Drive Sherman
The Lysander at war, France 1940

HUMBROL

Modeller's AirBrush



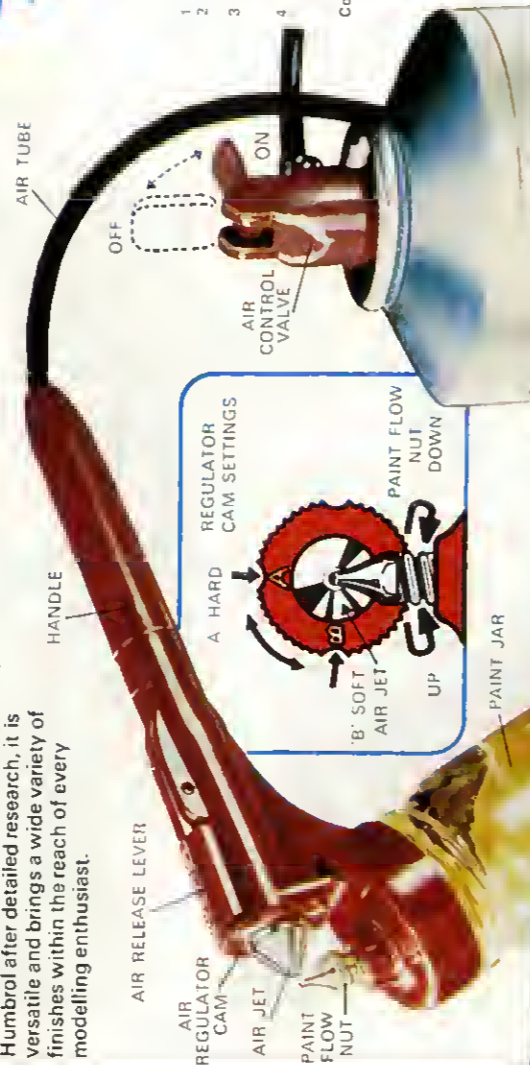
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AIRFIX magazine

December 1975
Volume 17 Number 4

FOR PLASTIC MODELLERS

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Editorial Director Darryl Reach
Editor Bruce Quarrie

Cover Picture

A Royal Navy Wasp helicopter settles on HMS *Falmouth's* flight deck. The RFA *Resurgent* is visible on the left. Full details for modelling the Wasp helicopter in 1:72 scale from Airfix Scout parts appear in *Airfix Magazine Annual 5*, on sale now (see also inside back cover). (MoD photo.)

Watch this space!

Next month *Airfix Magazine* will be bigger, brighter and even better than ever before. Star features in the new, A4 size magazine, will include modelling the Ju 87B Stuka, Russian trucks and armoured cars, and the 78th Regiment of Foot, 1778, all illustrated in full colour. As well as these, the issue will include all our regular features, but with bigger illustrations so that you will be able to see more detail. Watch out for the January 1976 issue, on sale around Christmas price 30p.

Contents

News from Airfix	Crusader, Rommel's half-track and others	201
In the air	USS <i>Nimitz</i> and her aircraft described by Peter F. Gulver	202
Duplex Drive Sherman	Modelled in 1:76 scale by Richard Muggeridge	208
Army-air colours 1937-1945	The Lysander in action by Michael J. F. Bowyer	211
Renaissance warfare	More Airfix figure conversions by George Gush	218
British army uniforms	15th Light Dragoons by Bryan Fosten	220
MIG 21MF	'Fishbed J' in 1:72 scale from Tim Perry	223
Wargaming Operation Sealion	Continuing this popular series from Terry Wise	228
Mexican 11th Infantry	Figure conversion in 54 mm scale from Martin Windrow and Gerry Embleton	231
Royal Marines Museum	Visited and described by Terry Gander	234
Squadron codes and colours	By Michael J. F. Bowyer and John D. R. Rawlings	237
New kits and models	Including new Matchbox releases	238
News for the wargamer	New board games reviewed	241
Book reviews	New publications of interest to modellers	242
Letters to the editor	Your chance to win a free Airfix kit	243

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London SE1
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Airfix Magazine is published for the proprietors, Airfix Products Limited, by PSL Publications Limited, on the fourth Friday of each month. Annual subscription rate £5.10 (USA \$12.00) from Surrage Dawson & Company (Productions) Limited. Second Class postage paid at New York Post Office, NY.



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US Scale Modeler November
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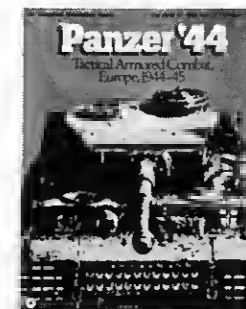
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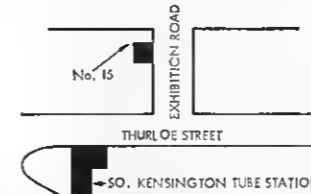
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GOODNUS GRIEFIMUS'

Tempus Fugit an' that. It's nearly time to watch out for the big V-12 Snowmobile in the sky, listening for its 16 track stereo goin' ho-ho-ho! and duckin' as it rains parcels from its computerized delivery chute on all an' sundry (Interplanetary Times November 30th 2505). Shades of the old fashioned Christmas! Well we hope they will enjoy the season then as much as we do today. Just like we enjoy it when the Seagull delivers the goods all year round. An' incidentally, it's almost time for the ol' Seagull to make its usual exhibition on Stand 48 at the Model Engineer Show. Yes, folks, we'll have lots of 'goodies', a few surprises, plus the added attraction of S.P.'s answer to Billy Connolly — yes, the Malcolm Dawson!! Himself will be around for the first days to talk board gaming with the faithful, converted an' just interested. Malcolm's message — "Jus' bring yer wallet."

It only remains for us to say thanks again for your continuing support in '75, in '76 we will be trying to improve our service even more. Meanwhile have a great time wherever you are. Our compliments of the Season 'an' a guid New Year tae ye a' ". Peace. From Ann, Alex, Martin and Peter.

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Bellerophon *	3	1910	Dreadnought
Colossus *	2	1911	Dreadnought
Orion *	4	1912	Dreadnought
Agincourt (New) *	1	1914	Dreadnought
King George V *	4	1912	Dreadnought
Iron Duke *	4	1914	Dreadnought
Queen Elizabeth *	5	1915	Dreadnought
Royal Sovereign *	5	1916	Dreadnought
Invincible *	3	1908	Battlecruiser
Indefatigable *	3	1911	Battlecruiser
Lion *	3	1912	Battlecruiser
Tiger *	1	1914	Battlecruiser
Repulse *	2	1916	Battlecruiser
Blonde	4	1911	Scout Cruiser
Weymouth	4	1911	Prot. Cruiser
Arethusa	8	1914	Light Cruiser
Comos	6	1915	Light Cruiser
Achilles	2	1908	Arm. Cruiser
Monmouth	9	1903	Arm. Cruiser
Diadem	6	1898	Prot. Cruiser
Delhi	3	1916	Light Cruiser
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Bayern *	4	1916	Dreadnought
Bluecher *	1	1909	Arm. Cruiser
Von Der Tann *	1	1910	Battlecruiser
Moltke *	2	1911	Battlecruiser
Seydlitz *	1	1913	Battlecruiser
Derfflinger *	3	1914	Battlecruiser
Nuernberg	3	1908	Light Cruiser
Emden	2	1908	Light Cruiser
Augsberg	4	1910	Light Cruiser
Breslau	4	1912	Light Cruiser
Regensburg	2	1914	Light Cruiser
Freya	5	1898	Prot. Cruiser
Frauenlob	10	1903	Prot. Cruiser
Emden	2	1908	Light Cruiser
V25 (2)	16	1914	Destroyer
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Nachi	CA
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South Dakota	BB
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IDEAS
from
AIRFIX

- 1 1:32 scale Crusader III
- 2 Rommel's half-track
- 3 8th Army figures
- 4 Queen Elizabeth I
- 5 British Grenadier 1776
- 6 US Paratroops

1

THE FIRST IN Airfix's new series of 1:32 scale AFV kits is certain to prove a winner with military modellers everywhere. Containing nearly 180 parts moulded in sand-coloured polystyrene, it depicts the famous British Crusader III Cruiser tank which saw extensive service in the Western Desert battles of 1942.

One of the fastest tanks of the last war, the Crusader III was an up-gunned end up-armoured version of the earlier Crusaders I and II, carrying a 6 pdr gun and 50 mm frontal armour, but lacking the earlier secondary machine-gun turret. Although its armour plate was thinner than that of German tanks entering service in 1942, the Crusader III's low silhouette and high speed (27 mph) made it an ideal tank for the fast-moving desert battles, and despite its drawbacks it was extremely popular with its crews.

Although lacking the internal detail which military modellers are now coming to expect in large-scale AFV kits, this model fills an important gap in the modelling market and is, of course, complementary in scale to 54 mm model soldiers.

Decals are provided for two tanks, one from the 1st Armoured Division in the desert and one from the 6th AD in Tunisia, and a commander figure is also included with the kit, price of which is £1.75.

2

THE LONG-AWAITED SdKfz 250 half-track in 1:32 scale from Airfix probably ranks as one of the most intricately detailed large-scale military vehicle models currently available from any manufacturer. Moulded in sand-coloured plastic and containing over 200 parts, it includes a wealth of internal and external detail, including the driver's position, command radio set and even a selection of rifles and machine-guns to clip to the vehicle's sides. Surface detail on all parts is superb and construction straightforward so long as the instruction sheet is followed closely.

December 1975

The little German SdKfz 250 was a versatile half-tracked vehicle produced in large numbers and several different versions during the last war. The 250/3 variant depicted in the Airfix kit was the command version with special radio equipment and a frame aerial, as used by Rommel himself.

A 1:32 scale personality figure of Rommel, as well as a driver and standing figure with binoculars, is included in this new kit, price of which is £1.35.

3

LATEST IDEA from Airfix is a range of 1:32 scale military figures, moulded in white polystyrene, with interchangeable arms, legs, torsos and heads to enable a wide variety of poses to be constructed. The first of these sets includes over 100 parts and enables six British 8th Army figures to be built.

We didn't manage to get photographs of assembled models from any of the new Airfix kits in time for inclusion in this issue, so to give you some idea of the contents here are some of the pieces of box artwork. Above Front and rear view of the British Grenadier. Below Six of the poses which can be assembled from the 8th Army figures set. Bottom Rommel's half-track.





Box-top artwork from the new Airfix 00/HO set of American paratroops.

Weapons and other items of personal equipment are moulded separately, and the box artwork demonstrates 12 basic poses which can be modelled, although the permutations are, in fact, practically endless.

Component parts are cleanly and delicately moulded, even the heads provided all having different facial characteristics and expressions. A choice of headgear and a sprue of weapons, including rifles and Brens, is also included in this set, price of which is 55p.

4

SECOND IN Airfix's range of 'Famous Women of History' kits in 1:12 scale is a finely sculpted figure of Queen Elizabeth I to go with Anne Boleyn released earlier this year.

Although the basic kit only comprises 24 parts and is simple to assemble, the model will test the painting ability of most modelers and should not simply be dismissed as 'one for the girls'. Price is 55p.

5

LATEST RELEASE In the 54 mm Collectors Series of figure kits is a British Grenadier of 1776. Finely moulded in white polystyrene with the usual attention to detail, the model actually represents a grenadier of the 5th Foot (Royal Northumberland Fusiliers) during the American War of Independence but can, of course, be painted differently. (Bryan Fosten's article on British infantry uniforms during the War of Independence in *Airfix Magazine Annual 5* is an ideal reference source.) The figure, which costs 28p, also further widens the scope for conversions from this range.

6

LAST BUT BY no means least, Airfix have now released two sets of American paratroops of World War 2, in 00/HO and 1:32 scales. Moulded in green polythene, the sets both contain figures in a variety of poses — lying prone, crawling, kneeling, marching, firing, throwing grenades and brandishing entrenching tools, as well as two radio operators and one guy who is the spittin' image of John Wayne.

Price of the 00/HO set is 28p, that of the 1:32 scale set 55p.

Peter F. Guiver

in the air



USS Nimitz visits England

COMMISSIONED in May of this year, the world's largest warship, the nuclear powered aircraft carrier USS *Nimitz* visited the Firth of Forth and the Solent in September. The *Nimitz*, together with the cruiser USS *South Carolina* and the attack submarine USS *Seehorse* (both also nuclear powered) formed Nuclear Task Group '75, and this force had been deployed to Northern European waters for integrated operations with other NATO forces.

These exercises had involved simulated attacks by Royal Norwegian Air Force F-5s and West German Starfighters, with support provided by German Navy Atlantics. The *Nimitz* visited Wilhelmshaven at the end of August, after which the Group sailed to Scottish waters for further operations with British forces. This included strikes by RAF Buccaneers, whilst Royal Navy Phantoms from No 892 Squadron carried out practice approaches on the *Nimitz*. The Group then headed for the English Channel, and throughout its deployment had been shadowed by varying numbers of Soviet warships and other vessels.

By any standards, the *Nimitz* (US Navy designation CVN-68) has some impressive statistics. The keel was laid at Newport News in June 1968, and launching took place in May 1972. With a combat load displacement of 88,363 tonnes/95,000 tons, the *Nimitz* has an overall length of 333 m/1,092 feet, an extreme breadth of 77

m/252 feet, and the flight deck has an area of over 4½ acres. She has four aircraft elevators and four catapults, and can accommodate over 6,200 crew. She is powered by two nuclear reactors which can operate for up to 13 years. Thus the space normally used for fuel for the ship can be used to carry extra aviation spirit, and the *Nimitz* can conduct flight operations for 16 continuous days.

All the aircraft on board the *Nimitz* were under the control of Carrier Air Wing Eight (CVW-8), and this consisted of nine squadrons or detachments. This was the same Wing that was on board the USS *America*, which visited Portsmouth in October 1974, though in the past year there have been several changes in the composition of the Wing.

Air defence of the *Nimitz* was in the hands of two units, each equipped with F-4J Phantoms. CVW-8's normal Phantom squadrons were absent on this cruise, but in their place was a US Marine Corps unit, VMFA-333, and a few F-4Js of VF-31, 'borrowed' from the USS *Saratoga*. Three squadrons on the *Nimitz* operate in the strike role, comprising VA-82 and VA-86 each flying A-7E Corsair IIs for light attack, whilst the Grumman A-6E Intruder is oper-

Continued on page 204

A-6E Intruder 152935 of VA-35 by the superstructure of the *Nimitz*.



AIRFIX magazine

AIRFIX NEW MODELS FILE

In 1941 the German High Command considered the strategic possibilities of conquering Egypt and the Suez Canal. In February, the 5th Light Division containing elements from the 3rd Panzer Division were despatched to Tripoli and renamed the 21st Panzer Division. In April they were joined by the 15th Panzer Division.

Together they formed the Deutsche Afrika Korps subsequently known as the Afrika Korps under the command of General Rommel, who was promoted in September 1941 to the rank of Field Marshal.

In 1942 Rommel lost at El Alamein and finally on May 13, 1943 the African campaign ended in victory for the British Eighth Army (the Desert Rats).

The Airfix Afrika Korps come as a multi-pose kit — a totally new concept in model soldier kit building. Each box contains over 100 polystyrene parts which are interchangeable so you can cement them together in a variety of positions.

There's a wide variety of equipment and

AFRIKA KORPS NEW MULTI-POSE KIT

uniforms, too, including tropical and steel helmets, high-laced leather and canvas boots and weapons.

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Afrika Korps 1:32 Scale.
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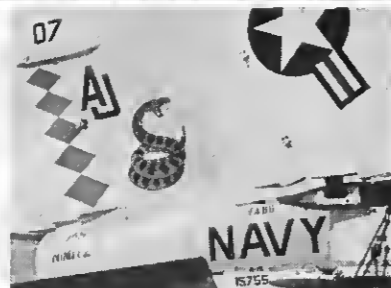
Continued from page 202

ated by VA-35 on all-weather medium attack missions. VA-35 also use a small number of KA-6D Intruders which have an in-flight refuelling tanker capability.

In addition to the five main combat squadrons, there were several smaller supporting units within the Wing. Another version of the Intruder is the EA-6B Prowler, and there were four of these aircraft on the Nimitz flown by VAQ-130. With seating for four, these machines are used for electronic countermeasures, and they can intercept record, evaluate and jam hostile radar or radio activity. A pilot and three ECM operators are housed in two separate cockpits, and the ECM avionics are mounted on the fin tip and in five external pods.

Despite its wing span of 24.56 m/81 feet, the weird-looking Grumman E-2B Hawkeye did not look unduly large on the vast flight deck. VAW-116 had four E-2Bs on the Nimitz, and these are operated on airborne early warning and command and control

Continued on page 206



Above A-7E Corsair II serial 158662 of VA-86 in standard grey and white finish. The panel on top of the fuselage behind the cockpit is orange with black edges. Left Markings of VA-86 on the tail of A-7E 157553 coded 407/AJ. The snake is orange with black detail and white fangs, rudder is white with orange diamonds, and all other markings are black.

Below EA-6B Prowler of VAQ-130, also in standard grey and white, with a cream nose. Right Tail markings on an EA-6B of VAQ-130. Basic colours are light grey and white, upper fin band and code 'AJ' are red. The dragon is light green with a red breast and orange lightning flashes. All other markings are black.



AIRFIX NEW MODELS FILE

The Desert Rats, or the British Eighth Army as they were more correctly known, were established in September 1941. They were organised by their Commander, General Sir Alan Cunningham, into the XIII Corps and XXX Corps – the latter incorporating the famous 7th Armoured Division.

The British Eighth Army was formed after some of the most fierce battles of the Second World War along the North African coast.

For three years German and Italian forces fought the British and Commonwealth armies to gain access to the vital Suez Canal.

In November 1941 Operation Crusader relieved the beleaguered fortress of Tobruk. A counter-attack by Rommel early in 1942 forced the allied armies back to El Alamein. However, following a major battle, the Eighth Army forced the Germans to retreat and finally on May 13, 1943 on the Cap Bon Peninsula the African campaign ended.

A total of 43 British Army Regiments were represented in the Eighth Army and were divided into four armoured divisions and four infantry divisions.

The Airfix Eighth Army come as a multi-pose kit –

BRITISH EIGHTH ARMY NEW MULTI-POSE KIT

a totally new concept in model soldier kit building. Each box contains over 100 polystyrene parts which are interchangeable so you can cement them together in a variety of positions. They wear the standard issue khaki drill shirt and shorts. And there's a variety of caps, boots, helmets, and equipment.

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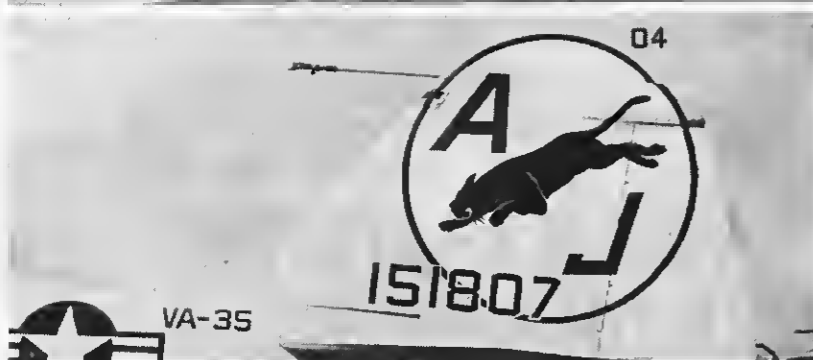
Also available are a set of detailed Airfix Books. These give all the background information to such models as the HMS Victory, Cutty Sark, Mayflower, Spitfire, Messerschmitt Bf109, P.51 Mustang and Hawker Hurricane.



British Eighth Army 1:32 Scale.
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THE DESERT RATS THAT WERE A PLAGUE ON ROMMEL.

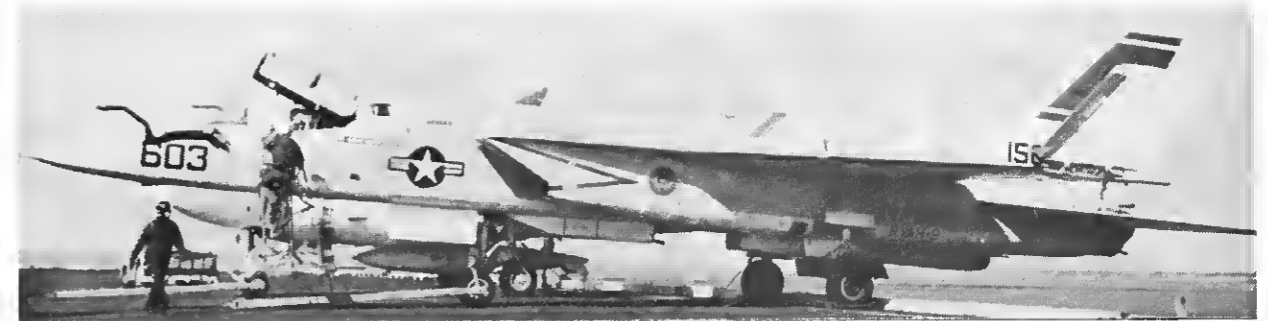




Above Tail view of E-2B Hawkeye 151715 coded 711/AJ of VAW-116. Fin tips are meroon. **Left** Tail markings of A-6E of VA-35. Fin disc white with black outline and animal. 'AJ' is green, all other markings black. **Below** F-4J 153773 coded 110/AC of VF-31 from USS Saratoga. Note black flaking off nose radome.

Continued from page 204
missions. During 1974 VAW-116 were operating from the USS Constellation. Another large aircraft type were two RA-5C Vigilantes, used for long-range, high-speed strategic reconnaissance by RVAH-9.

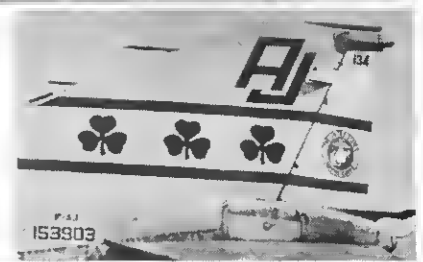
Anti-submarine operations can also be mounted by the Nimitz, and a number of



Sikorsky SH-3H helicopters were visible, these being flown by HS-15. Last but not least on the Nimitz was a rather elderly looking and portly Grumman C-1A Trader, which is used for carrier onboard delivery and other utility tasks. Also still perked on the deck in the Solent was an 892 Squadron Phantom FG1.

Most of the aircraft on the Nimitz carried the fin code 'AJ' of CVW-8, the exceptions being the C-1A, two of the KA-6Ds, whilst the F-4Js of VF-31 were coded 'AC'.

Top RA-5C Vigilante serial 156624 of RVAH-9 in standard light grey and white. Fin is all white with green bands, other markings black. **Above** A-6E Intruders of VA-35 in grey and white. Nose radomes and air intakes are cream. Note 'VA-35' on underwing tanks. **Right** Tail markings on F-4J 159903 of VMFA-333. Fuselage and fin are light grey, rudder white. Horizontal band white with green edging and shamrocks. Codes and serial black, warnings red. **Below** US Marine Corps F-4Js of VMFA-333.





Duplex Drive Sherman tank in 1:76 scale

Sherman with a difference modelled from the Airfix kit by Richard Mugeridge

THE SHERMAN 'Duplex Drive' or 'DD' tank was designed as a means of enabling tanks to land without bringing their landing craft within range of enemy positions. By using their screens and propellers they could swim ashore to give supporting fire to infantry. In practice they were dangerous to use, since they could be sunk by small arms fire while their own weapons were useless behind the screens. For this reason they were rarely used and at the crossing of the Rhine many were lost with their crews. They continued in service until they were superseded by Centurions equipped with flotation screens.

To construct this model I used the Airfix LCM3 and Sherman kit. First build the tank as normal, then add the hull from 20 thou plastic card. This fits around the bottom of the upper hull and curves downwards at the front as shown. The two small cylinders on the hull rear can be made from scrap or sprue.

For the screens I used a piece of fine canvas 10.5 inches long by 2.4 inches wide, but drawing linen or tissue could be used. Add the pipes shown reaching half-way up the screens, making sure to keep the seam at the front of the vehicle, then add another piece of canvas as shown in the diagram. Fix in the long pipes, then sew the screens together at the front.

To support the screens bend a piece of wire to the shape of the flotation hull template illustrated in the diagram, also curving downwards in front, and finally fold the large piece of canvas over it as seen in the diagram. Then glue the screens to the edge of the hull. The rigid supports were made of

stretched sprue.

Next add the small triangular spray cover on the front of the screens with a wire support represented by a dotted line. The plat-

form on the turret rear is 9 mm wide. It was used for observation when the screens were raised. The propellers came from the LCM3 and once reduced in size were mounted on pieces of sprue. A well-supplied spares box could supply alternative propellers.

To construct the model with folded screens is easier and less canvas is necessary. The struts fold as shown in the diagram, and the pipes can be made of thick painted string.

A DD Sherman, the basis for this model, is preserved at the RAC Tank Museum at Bovington Camp, Dorset, to whom I am grateful for valuable information. □

The two photos on this page show DD Shermans of 'D' Squadron (Amphibious Wing) 7th Royal Tank Regiment, in the tank park at Stokes Bay, Gosport, in 1950-51. The vehicle below sunk itself with its own gunfire! (via J. M. Hook). Drawings on page 210.



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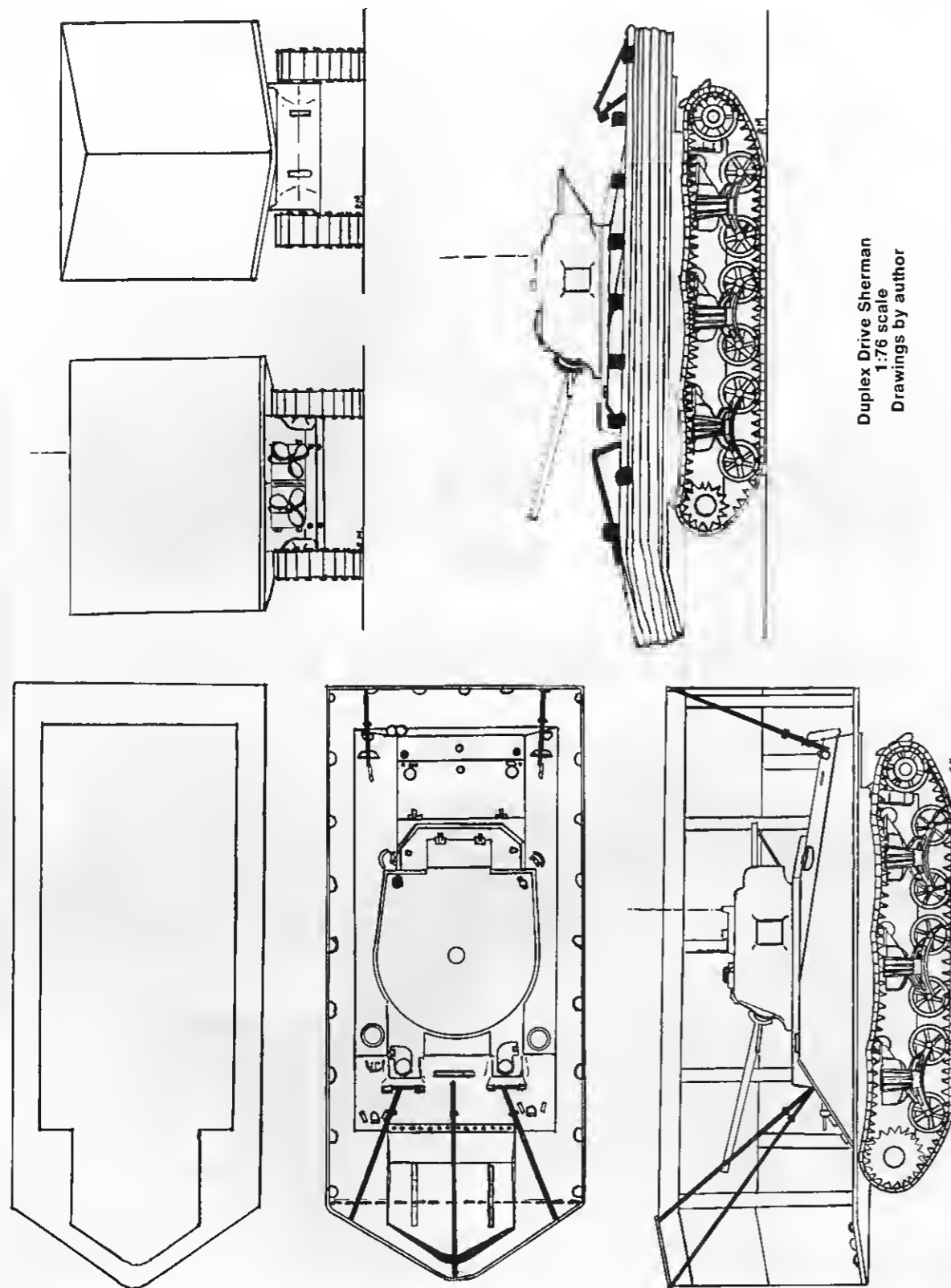
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Michael J. F. Bowyer

Part 3 — The Lysander in action

ON MAY 10 1940 the Air Component Field Force in France included five squadrons of Lysanders. Although an attack on France and the Benelux countries had long been expected its ferocity and suddenness were overwhelming.

Lysanders in France still had silver under surfaces and Dark Green/Dark Earth upper camouflage, wrepped around the fuselage belly on some aircraft. Type A roundels were carried on the fuselage sides and beneath the wing tips with Type B above the wings. No evidence has yet come to light indicating that the Lysanders were already wearing a yellow surround to their fuselage roundels, but it is reasonable to assume that this was so, also that some carried fin stripes. The latter comprised a wide assortment as regards height and width on Lysanders observed in Britain immediately after the fall of France, so presumably this was a characteristic during the French debacle. Squadron letters were medium grey, unit coding being forward on the port side and usually placed in the same position on the starboard fuselage side.

Action for No 2 Squadron commenced at dawn on May 10 when 75 bombs rained upon their detachment's base at Senon. This caused the unit to hurry back to Abbeville. As soon as Belgium was violated GHO

ordered Plan D, thereby instructing the British Expeditionary Force to move forward to the River Dyle in Belgium and hold a line pivoted on Louvain. To provide air reconnaissance for the BEF part of the Lysander force was ordered into Belgium. Before it could do so squadrons involved needed to seek suitable Advanced Landing Grounds — easier said than done.

First away was No 4 Squadron which narrowly missed a dawn onslaught by Heinkel 111s, and which had hurriedly dispersed some of its aircraft to Croix Molignéeux. Nevertheless, four hours before the army crossed into Belgium two Lysanders of No 4, L4742 and P1733, entered Belgian air space to observe designated routes for the land forces, and seek an ALG eventually chosen near Aspeleere. At 14.30 hrs on May 10 six He 111s appeared over Monchy. Spirited action by the gunners of No 210 Battery using Bofors and LMGs drove off the enemy. At the same time enemy aircraft penetrated to Dieppe where, to escape destruction, the Lysanders of 26 Squadron were ordered into the air. It was clearly going to be a tough war.

During May 11 Lysanders contented themselves by reconnoitring British advanced positions and the army drive into Belgium, since the enemy remained in what

was designated the Strategic Reconnaissance Zone, the prerogative of the Blenheim reconnaissance force. A photo mosaic of the British front line was obtained although the army advance was greatly hindered by the long, sad columns of refugees which were a great hindrance.

Surviving records of the Lysander operations in the French campaign suggest that initial offensive operations were undertaken by No 4 Squadron on May 12, although only the retreat of Belgian forces was seen.

A special feature of the enemy's advance was the rapid deployment of anti-aircraft guns which accompanied the Wehrmacht. Reconnaissance even of most forward positions was hazardous so that on May 13 when No 4 Squadron made first contact with the foe P1733 was badly shot up and P9063, flown by P/O Vaughan, failed to return. Next day 'B' Flight of the squadron took up residence at the primitively equipped ALG at Aspeleere and soon after L4742 was also missing. The task in hand was mainly to report on the position of the German advance, although location of enemy gun batteries to permit counter-battery fire was an equally important task.

On May 15 No 2 Squadron sent its 'C' Flight to Wevelghem to commence reconnaissance flights which this end 4 Squadron undertook during the day.

Two more Lysander squadrons now entered battle. As soon as No 26 entered the fray it lost an aircraft. No 13 Squadron, which moved to Douai on May 11, was now also busy on operations.

By May 16 the retreat of the BEF from the Dyle Line had begun as the enemy advance on the Meuse area produced an alarming aspect. It was clear that the squadrons in Belgium might easily become cut off. Therefore they had to be ordered back to France. During the day P/O Langley on patrol was set upon by six Bf 109s. His gunner claimed

N1294: LX-T of 225 Squadron has spat side panels removed to prevent wheel binding, a common feature. Under belly remains camouflaged and lower surfaces were presumably still silver. A gas detection patch is on the tailplane. LX:W has entirely different letter style, a white spinner and tall fin striping. The gas detection patch is on the front of the starboard spat, above the wing on LX:E the second aircraft in the flight (IWM CH1180).





A formation of Lysanders of No 225 Squadron in August 1940. LX:E-L6865 nearest still has a camouflaged under belly. LX:T-N1294 has unit letters aft like LX:M-N1256. All have the inner faces of the spats camouflaged (IWM CH1178).

one, but 4 Squadron lost another aircraft. No 16 Squadron commenced tactical reconnaissance (Tac/R) sorties on May 17 in the Le Cateau-Cambrai area. Occasionally by this stage of the campaign the Lysanders were involved in low level bombing, but their small loads had little effect upon enemy columns. It was indeed fortunate that No 14 Squadron had by now vacated Aspelare since on May 17 Ju 87s dive bombed the ALG, although they did little damage.

May 18 found No 16 Squadron busily flying Tac/Rs losing L4804 in the process. N1221 of 13 Squadron was just airborne when a bomb fell from the Lysander. Its pilot orbited then landed. As he touched down at Glisy another bomb exploded destroying the aircraft.

No 2 Squadron was now attached to 3 Corps, but the enemy advance was ever gaining strength. A special group, AMFORCE, was moved to the Cambrai area and No 4 Squadron operated with this to provide intelligence material. Pilot Officer C. H. Dearden managed to bring KO:N back to his unit to relate how he had been set upon by nine Bf 109s near Cambrai. He eluded them by diving to ground level. Although his fuel tank was holed no less than 32 times he managed to fly for 20 minutes to land at Douai.

By May 19 it was patently obvious that the Lysander force was unable to provide much useful information to the army. Nos 2 and 26 Squadrons were therefore ordered to retire to England, reform and resume Tac/Rs close to the French coast and also

fly bombing operations from the new main base, Hawkinge. Badly mauled, No 13 Squadron made its way through Authio early on the 19th. No 26 Squadron had already retreated there from Glisy and soon it was told to proceed to England. Whilst the aircraft could easily reach it, home was only reachable by a tortuous route for the ground personnel. Such Lysanders as could not be flown home were left burning on the ground to prevent enemy capture.

By skilful flying at low level and using good manoeuvrability the Lysander could escape from the Bf 109s, but flak evasion was not so easy. Lysanders were really too slow for the tasks upon which they were being employed. Even over their home bases they were easy prey, as when 109s shot down two aircraft of 4 Squadron at Marcq on May 19. Two others of No 16 Squadron were shot down on a ferry flight

from Abbeville the same day during the squadron's return to Lympe.

Nos 4 and 13 Squadrons gallantly held on in France making daily Tac/R flights but steadily retreated as their bases became untenable, although it was May 29 before No 13 Squadron quit France.

By then the squadrons which had gone to England were busily operating, having resumed action on May 22. On that day No 2 Squadron roamed around Boulogne assessing the situation and was to be seen over Campagne, Etaples and Arras. Pilot Officer A. F. Doige was despatched to Merville in KO:U. His gunner shot down a Ju 87 and soon after Doige destroyed an Hs 126 using his front guns. The same day six Lysanders of No 2 Squadron delivered a bombing raid on roads south of Boulogne but as P/O G. Grant Govan landed P1672 at Bekesbourne three bombs which had hung up tumbled off and exploded, killing one of the crew and seriously damaging the Lysander.

Some remarkable escapes following battle damage were made during this phase of operations. On May 25 P/O E. N. Baker of No 2 Squadron flew a Tac/R from Bekesbourne to the St. Omer-Bethune area. Although one of his bracing struts was shot away, he made base. Later that day P/O F. M. G. Scotter on a Boulogne Tac/R in KO:X was attacked for 20 minutes by more than a dozen Bf 109s. Although the Lysander was seriously damaged it was brought back to Hawkinge.

Despite the Lysander's distinctive shape, failure to fire the colours of the day fast enough brought three Spitfires into action against L4801 of No 16 Squadron on May 26. Three days later P/O C. F. M. Chapman was on patrol near Dunkirk when anti-aircraft fire blew away three wing ribs ahead of the spars of KO:A. This forced him to maintain a speed of over 100 mph and led to a spectacular landing at Hawkinge.

The most intensive operation of the whole campaign took place on May 27 when 22 Lysanders including KO:U, S, F, C, D, V, P and

Continued on page 214



More points of differing detail are visible on R2007. Gas detection patches head both spats, the letter style is thin, bracing strut root appears to be black. All Lysanders seem to have had their unit letters ahead on the port side.

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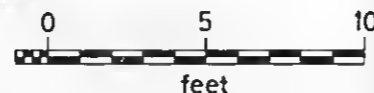
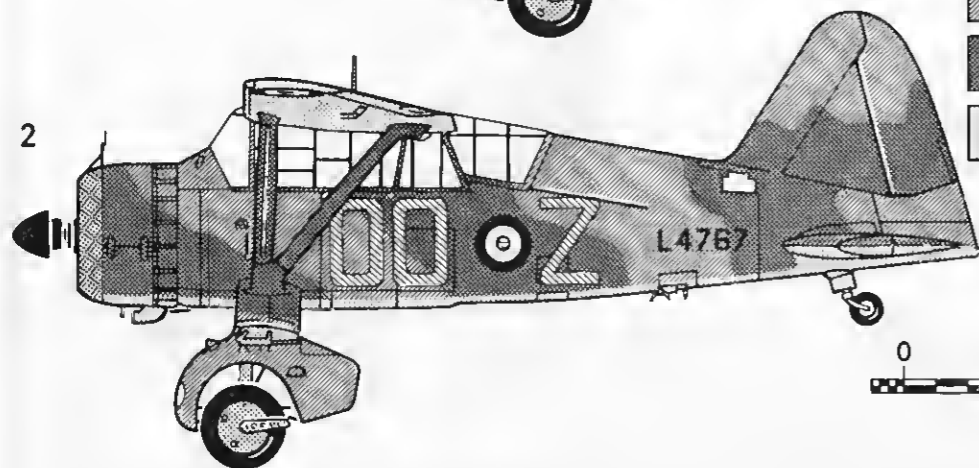
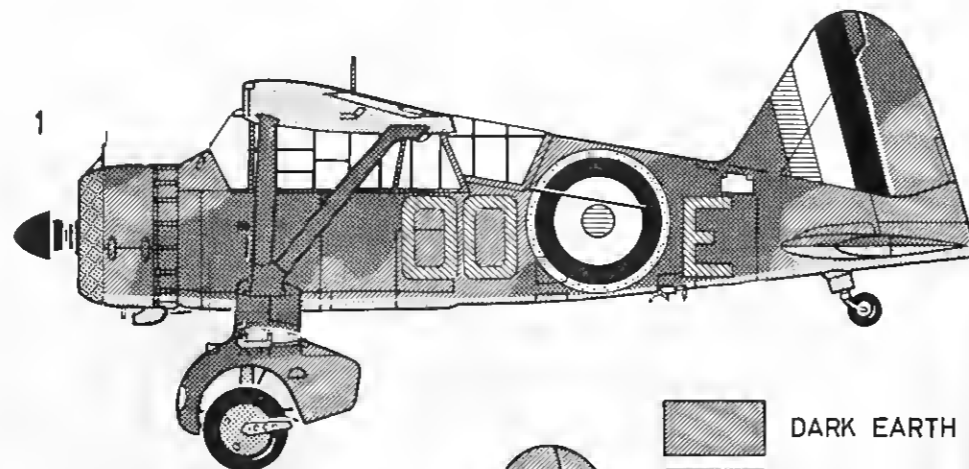
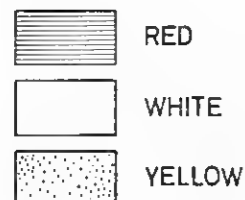
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1 A Lysander of No 13 Squadron in the markings carried in August 1940. The roundel was very large with a very narrow yellow surround.

2 Z-L4767 of No 13 Squadron. This aircraft joined the unit in February 1939 and was held until February 1941. The markings shown were carried early 1940 when in France.

Drawings by David Dean, who was also responsible for those of the Lysander in our October 1975 issue.

Continued from page 212

B of 2 Squadron, L4798, L4793, P1669, L4795, L4806 and P1684 of No 16 Squadron and N1243, L6863, N1203 and L4756 of No 26 Squadron dropped supplies in containers to the beleaguered garrison in the Citadel at Calais.

Official records of the part played by the Lysanders in the French campaign are very incomplete and conflicting. It is unlikely that any detailed coverage will ever now be possible. Thus any recollections and photographs relating to the period would indeed be welcome. An estimate of the number of sorties flown between May 10 and 31 suggests about 500, and that another 100 were flown in the first week of June 1940, some by aircraft operating out of Rouen/Boos. Operations ended about June 6. An official return of aircraft losses lists 34 Lysanders as being written off between May 10 and June 20 1940.

Aircraft and squadron strengths were seriously cut by the end of May, so much so that No 613 Squadron equipped with Hectors and receiving Lysanders was called to action. On May 24 six of its Hectors were flown to Haw-

kinge and next day six of its Lysanders (P1670, L6872, L6855, P1724 and P1693) bombed guns near Calais. The Hectors were unable to operate because the bombs available were unsuitable, but at dawn on May 26 they went again to the advanced base and at 0950 K9706, K8111, K8127, K9721, K9781 and K8108 set off each with two 120 lb bombs to attack the gun battery the Lysanders had aimed for the previous day. A further attack by Hectors K9706, K8127, K8116, K9781, K9727 and K8108 was carried out on Calais on May 27, these being the only operational sorties ever flown by Hectors.

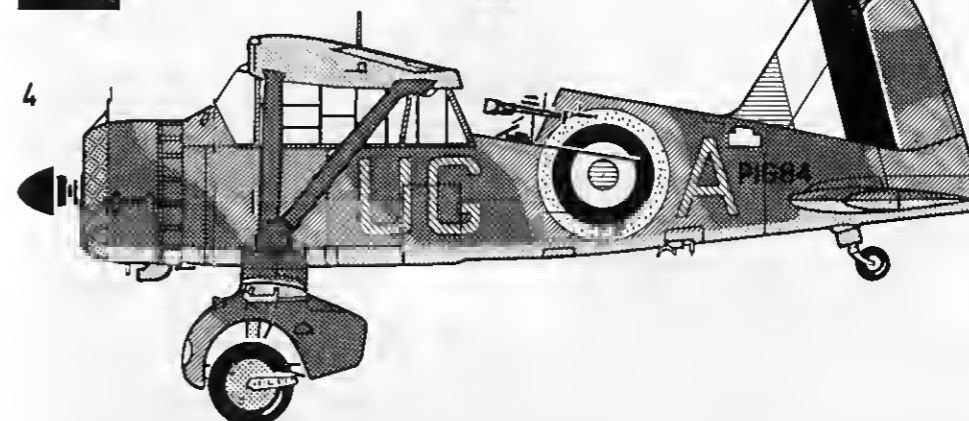
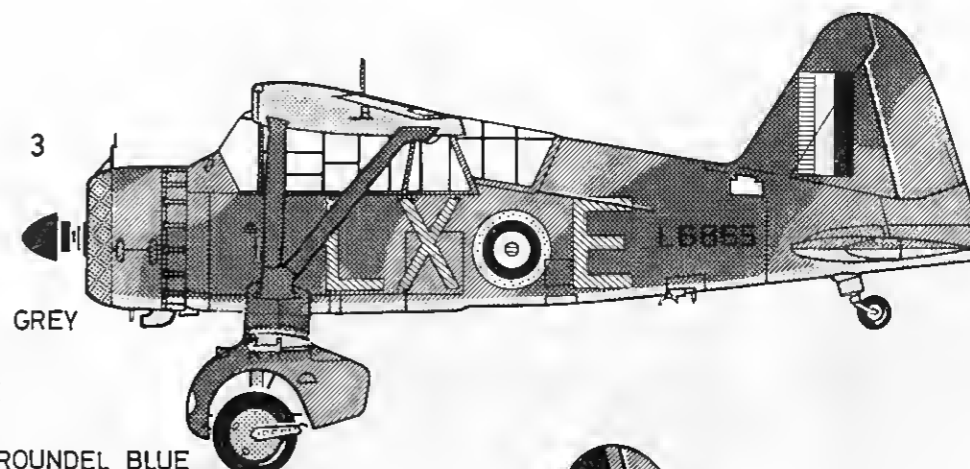
Once their participation in the French campaign had ended the Lysander squadrons were repositioned and *Plan Banquet* came into play with fears of an invasion of Britain. Daily, from mid-June at dusk and first light, pairs of Lysanders patrolled the coastline, each squadron being allotted patrol lines between which it looked for any sign of invaders.

Throughout that alarming summer of 1940 there was concern lest the enemy resorted to the use of poison gas, particularly during an

invasion of Britain. Accordingly Nos 2, 4, 26, 225 and 614 Squadrons of Lysanders were chosen to carry out any retaliatory gas action. Each squadron received 50 250 lb Smoke Curtain Installation units sufficient for each aircraft to make two spraying sorties when allowing for an IE of 12 aircraft per squadron.

The Lysander was clearly going to remain the main equipment of the army co-operation squadrons, and production had built up well. A refined variant came along in August 1940, the Mk III. Externally it differed little from the Mk I, internally it had self-sealing fuel tanks and its engine gave more power. Twin Brownings were already in the rear cockpit. The first Mk IIIs were delivered to 110 Squadron RCAF at Odiham (in the form of R9001-9008) on August 25 1940. These were powered by the Mercury ME VI, whereas R9009 delivered the same day was the first with a Mercury XVA. The Canadians were chosen to work out any snags since they were not yet operational. The new mark was gradually phased in from October 1940 when R9012, '13, 28-30 joined No 4 Squadron and R9015-19 went to No 16 Squadron.

AIRFIX magazine



3 LX:E L6865 of No 225 Squadron in the marking style of August 1940 with Sky in place of silver, but the breacing strut still to be painted Sky. Such anomalies abounded on the Lysanders at the time.

4 P1684 as recorded at Cambridge mid-August 1940. The rear canopy sliding panel has been removed, spat covers are off, gas detection panel was above the starboard wing. Roundel was exceptionally large and the fin stripe too.

Trials at Boscombe Down in April-May 1940 had resulted in a TI of a twin Browning gun installation for the rear cockpit. No 16 Squadron tried it out in mid-June 1940. It was not suitable and the usual Vickers GO gun was reinstated. Westland then produced an effective unit, but it was deemed unwise to install this until the autumn invasion period was passed. For the model maker's point of detail concerning the Lysander of this time is that the rear canopy over the gunner's compartment should be removed. This was to permit the gun to be at readiness at all times.

Another feature of armament first tried in June 1940 on K6127 was the fitting of a 20 mm Hispano cannon to each outer side of the spats in place of the bomb stub. After preliminary trials at AFDU Northolt K6127 went to 110 Squadron RCAF. Trials continued with firing against tanks, then it was decided to equip all Lysander squadrons with sufficient cannon for half their IE strength. By the end of 1940 all except two squadrons had their gun establishment. These guns could fire a dozen rounds per section each, but they cut the Lysander's speed by 12 mph. Since only bell

ammunition could be supplied cannon were of doubtful value anyway against AFVs. A cannon-armed Lysander would make an interesting and easy model to build.

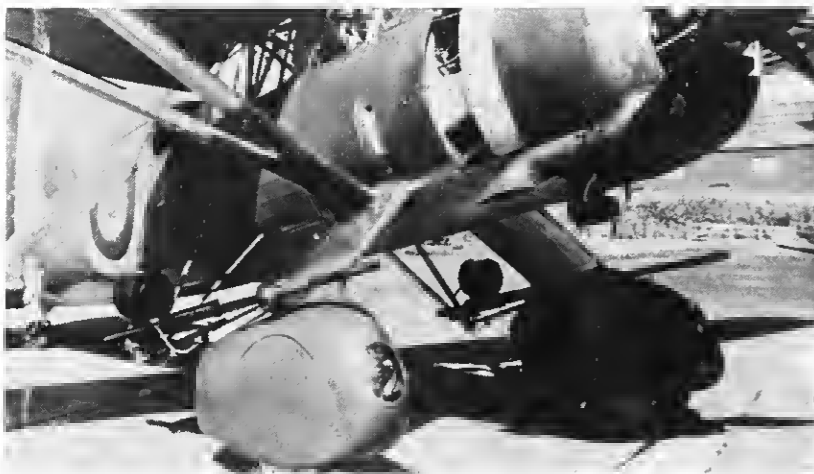
The roles for which the Lysander was listed in summer 1940 were bombing with a load of 12 40 lb and 16 20 lb on stub and beneath the rear fuselage on light series carriers, cannon attack and gas spray. The latter two roles meant some delay in conversion of course. In the case of gas spray with the aircraft flying at between 250 and 500 feet a dense cloud of gas could cover an area 600 yards long by 60 yards wide, boosted to 600 yards wide when flying at up to 4,000 feet, but all dependent upon wind speed.

Throughout August 1940 the Lysander squadrons stood at high readiness patrolling and awaiting the invasion. Twice in September they were brought to Invasion Alert, but of course nothing materialised. Had it done so a fleet of Tiger Moths and Magisters placed at the disposal of HO Home Forces under *Plan Banquet Light* and drawn from 15 EFTSs and flown by instructors, approximately 70 flights each of about five aircraft,

would have been attached to the 12 operational Lysander squadrons operating by the autumn of 1940. Bomb racks were supplied and fitted at the EFTSs, and each army co-operation squadron held 2,000 20 lb Type F bombs, eight of which would have been carried by each trainer. The task of the latter would have been level and dive bombing of any troops once they were inland from the landing zone. Just how serious was the situation could be seen at the time when the trainers undertook operational training at home stations.

Lysander markings

Three colour schemes were evident on Lysanders between June and late September 1940, viz: usual camouflage with silver under surfaces including the under side of the fuselage; usual camouflage with silver under surfaces but with upper surface colours extending beneath the fuselage still evident on a few aircraft certainly up to August; and usual upper surface colours but with Sky under surfaces including the belly of the fuselage.



The cannon trial installation on K6127. The guns have bracing struts between each one and the fuselage.

Sky was introduced generally in July 1940, and all the Lysanders which I saw, drawn from four of the squadrons, had a 'medium shade' of the green-toned Sky.

Grey squadron codes varied in size and position, but the greatest variation lay among fuselage roundels and fin stripes. In August 1940 the Lysanders of 2, 16 and 26 Squadrons were a daily sight for me and from personal observation I can state that their fuselage roundels differed in size almost from machine to machine. Some were extremely

large, others comparatively small. The width and height of fin striping varied just as much. Pilots explained that they felt safer from naval and army gunners when the national markings were the largest possible. With the introduction of Sky the underwing roundels were deleted. There never was a norm for Lysander markings until very late in 1940, and well into 1941 the markings differed although new deliveries established more normality where roundels and fin stripes were concerned.

Lysander squadron bases May-December 1940

Lysander bases in France were many, varying from fully established airfields to ALGs — merely fields with tented accommodation and civilian billeting. The following is an outline of bases used.

2 Squadron 10.5.40 main base Abbeville, 'C' Flight detached Senon, returned to main base, 15.5.40 'C' Flight advanced to Wevelghem, main base now Bethune, 19.5.40 retired to Lypne, to Bokesbourne then Croydon next day, 21.5.40 to Bokesbourne, 8.6.40 to Hatfield and soon after to Sawbridgeworth, the base to the end of the year although flights detached to Cambridge from 1.8.40.

4 Squadron 10.5.40 et Monchy Legache, 14.5.40 'B' Flight to ALG Aspelaere, 15.5.40 main base to Mons en Chausee, forward base Lille/Ronchin, 18.5.40 'B' Flight to Ronchin, some dispersal to Lille/Marcq, 21.5.40 to Cleirmerels, 22.5.40 began to retire to UK, move completed 24.5.40 when squadron moved to Ringway, 8.6.40 to Linton-on-Ouse, Detachment for ASR at Menston, To York in 10.40.

13 Squadron 10.5.40 et Fiamincourt, 11.5.40 to Douai, 22.5.40 to Abbeville, also used Clairmarais, 29.5.40 to UK and Hooton Park, 17.6.40 to Speke, 14.7.40 to Hooton Park.

16 Squadron 10.5.40 et Bertangles, 19.5.40 retired to Lypne, 3.6.40 to Redhill, 29.8.40 to Cambridge.

1.8.40 to Okehampton, 15.8.40 to Weston Zoyland, 26 Squadron 10.5.40 et Dieppe, 11-12.5.40 to ALG Arras, 14.5.40 to Althie, 19.5.40 retired to Lypne, 8.6.40 to West Malling, 3.8.40 'B' Flight to Cambridge.

Lysander squadrons established but not operated in France were: **110 Squadron**, RCAF, arrived Odiham 27.2.40, 7.4.40 et seq used Redhill as advanced base, **225 Squadron**, formed Odiham 3.10.39, to Tilshed 9.6.40, **239 Squadron**, formed Hatfield 18.9.40, 'B' Flight detached Cambridge, other detachments to Gatwick, **241 Squadron**, formed Inverness 25.9.40, **268 Squadron**, formed Bury St Edmunds 30.9.40, Detachment et Cambridge 1-24.10.40, **309 Squadron**, formed Abbotsinch 28.10.40, To Renfrew 6.11.40, **613 Squadron**, Odiham 5.40, Netherthorpe 6.40, to Firbeck 7.9.40, **614 Squadron**, Replaced Hector et Odiham 2.40, To Greengrass 8.6.40.

Lysanders used by squadrons in France 10.5.40-8.6.40: official records, upon which these notes are based, are incomplete and contradictory. One listing states that 34 Lysanders were lost in action. The following notes are based on several sources. Where no dates are given the aircraft is believed to have served throughout the stated period.

2 Squadron L4809 FTR 31.5.40, L4811 ?, L4815, L4816, L6847, L6848, N1241, N1258, N1259, N1261, N1262, N1318 31.5.40 et seq, also N1319, P1672 FBOE 22.5.40, P1714 18.5.40-20.5.40, P1723, P1742 31.5.40 et seq also R1989 and R1997, N1242, P1721 ?, P1722 ?.

4 Squadron L4742 FTR 14.5.40, L4745 FTR 14.5.40, L4748, '52, '54, '55, L4814 FBOE 16.5.40, N1263 FBOE 18.5.40, N1264 FBOE 18.5.40, N1274, P1711 SOC 5.40, P1734, P9061, '62, '63 FTR 13.5.40, '64.

13 Squadron L4759, '60, '64 SOC 30.7.45, '65 SOC 8.40, '67, '68, '69, '72, L4812 SOC 5.40, L6885, '88, N1213 used on 18.5.40 only, N1215, '19, '20, N1221 FBOE 18.5.40, N1223 SOC 7.40, N1246 FTR 5.40, N1260 SOC 7.40.

18 Squadron L4793 FTR 31.5.40, L4794, '95, '96 FTR 19.5.40, L4798, L4801, '02, '03, '04 FTR 18.8.40, '05, '07, '13, N1244 from 31.5.40 and N1297, P1669, '74 on charge from 31.5.40 with P1675, '78, P1684, '85 FTR 27.5.40, P1687, P1720 FTR 28.5.40, P9077 and P1673 on charge from 31.5.40.

28 Squadron L4761 20.5.40 to FTR 1.6.40, L4756 from 20.5.40, L4773 FTR 27.5.40, L4774 crashed 15.5.40, L4775, '76, '77, '78 FTR 3.6.40, L4750, '82 FTR 27.5.40, L4785 FTR 3.6.40, L6854, N1243 20.5.40 — FTR 27.5.40, N1269 20.5.40 et seq, L6863 20.5.40 — FTR 27.5.40, N1202 FTR 19.5.40, N1203, N1211 30.5.40 FTR 4.6.40, N1212 16.5.40 — 17.5.40, N1243 20.5.40 — FTR 1.8.40, N1253 20.5.40 — FTR 1.6.40, N1271 FTR 3.8.40, N1275, '90 FTR 19.5.40, N1292 FBOE 19.5.40, N1306 from 30.5.40, P1684 & P1714 20.5.40 et seq, P1745 30.5.40 et seq, P9080 31.5.40 et seq, P9107, P9127 18.5.40 et seq.

Abbreviations: FTR = failed to return. FBOE = written off after battle damage — in some cases might have been more accurately FTR. □

R1999 of 225 Squadron shows yet another marking style. The reduced size fin stripe is raked, wing struts are partly Sky, inner faces of spats camouflaged and the Sky under surfaces terminate in a slightly wavy line. Even the roundel position is different from others depicted (IWM CH1189).



The F-15 Eagle, described as the "best, most manoeuvrable fighter ever built" is the first pure air superiority fighter to be developed for the USAF since the F-86 Sabre of 1948. High performing, heavily-armed, agile enough to perform 5g turns which would rip most aircraft to pieces, the F-15 has been designed to fulfil one specialist role: to rule the skies during the late seventies and early eighties. In simple terms, a dogfighter.



First requirement for a new air superiority fighter came from the USAF in 1965. Known first as the FX project, McDonnell-Douglas won the formal design competition and Pratt and Whitney the contract for the turbofan power units. Air superiority requires a combination of performance,



avionics and weaponry, and McDonnell-Douglas made some 500 design studies of features for the aircraft. High speed agility was of prime importance. The need to save on weight, cost and complexity ruled out a variable-geometry layout, but twin engines were adopted for survivability. Multiple control systems will keep the F-15 fighting in the face of battle damage, and the engine is module-built to allow for rapid repair. Off-the-shelf avionics have been used wherever possible, and flying controls have been kept simple.

Main weapon for the F-15A is a General Electric 20mm Gatling gun mounted in the right hand wing root. The new Philco-Ford 25mm gun — 6,000 rounds per minute! — will be fitted to the second Air Force wing. Missile armament is a mix of 8 Sidewinders and Sparrows and the Navy's new Agile may be adopted later. Just as important as

the impressive array of weaponry itself is the Hughes APG-63 "dogfighting" attack radar which gives the pilot a continual flow of information and calculations for air-to-air combat.

The USAF has made some proud claims for the F-15. They say it will out-climb, out-maneuvre and out-accelerate any MiG now or in the next decade. In simulation exercises against a MiG-25 Foxbat the Eagle has proven superiority with either gun or missiles. Even assuming that Soviet missile technology is further advanced, the F-15's manoeuvrability will still give it a clearly-defined edge.

The Eagle made its first flight at Edwards Air Force Base on July 27th 1972 and by the end of 1973 eleven were involved in test flight studies. Fully operational deployment should be attained during 1976. The Eagle, with its smooth flat surface area painted "air superiority blue" looks every inch a lethal weapon. The dogfighter has returned.

Revell's superbly detailed 1/72nd scale F-15 Eagle Kit makes the most of this stunning new dogfighter. The finished model stands over 10 1/2" long with a wing span of over 7". Full realism details include removable Pratt & Whitney Turbofan engine.

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George Gush

renaissance warfare

Converting Airfix figures for Renaissance armies

THIS EXTENDS the range of the previous article to typical 17th Century and Eastern types who can be produced from Airfix 00 scale figures with a minimum of trouble, thus making wargame armies of such conversions a practical possibility. Most of the 17th Century figures are usable for the late 16th Century too, or even for earlier parts of the period with slight modification (for example, the pikeman could be given a morion, made as described in the previous article, or a plumed hat of Lansknacht style as for the cavalryman below).

ECW or 30 Years' War cavalryman

He represents the 'standard' type of the period. As with our earlier 16th Century horseman, the basis is an Airfix French Napoleonic Cuirassier; once again built up below the waist with Plasticine, attached with Uhu and hardened with clear dope; this time, however, the Plasticine is shaped into the skirts of his buff coat. Pistols are made as on the earlier figure, with paper folded over plastic rod, and attached with Uhu.

In this case, however, a 'head transplant' has been performed; cowboy and Confederate heads are a ready source of the broad-brimmed hats required for so many 17th Century troops, both horse and foot. Plumes are of Plasticine, treated as described, and are attached after the head has been fixed on. Glue alone is inadequate for the latter operation, and a cut-off length of pin must therefore be used, thrust down through the head and into the body. Similar means are employed to attach the horseman to his horse, though in this case a preliminary hole is made in the saddle, a piece of pin inserted point up, and the rider pressed down upon it. Glue may be used to reinforce the joints and cover any gaps. As considerable pressure has to be used, these pinnings should be done before the attachment of any bits and pieces to the figure.

Finally, the waist-sash is largely painted on, with outlining to make it stand out, but its flying ends are made from household foil and attached with Uhu.

The completed figure could have a black, grey or tan hat, plumes probably black or white, black or polished steel cuirass, light tan skirts to coat, coloured sleeves — could be striped, and dark brown boots; the one shown proclaims his Cavalier affiliation with a red sash, but he could also be a Round-head, Swede, Dutchman or French caval-ryman.

ECW or 30 Years' War musketeers

There are several quick ways of produc-ing these essential gentlemen. One is to use the Confederate infantryman firing; main modifications are: shave down his lower legs with a sharp modelling knife, to repre-sent stockings; add Plasticine plumes to hat; glue short pieces of plastic rod, stretched sprue or similar along the cross-belt over his left shoulder to represent the cartridges hanging from his bandolier; and attach a pin sword-scabard as described in the previous article.

The figure can then be cut carefully from his own stand and heat-welded to a larger one (I use the ones provided for dead horses in various sets), allowing a headless pin to be thrust up through the stand and into the musket, as a musket-rest.

Another figure I have used is the World War 1 British Infantry firing, which requires a Confederate head, but has the advantage of a longer jacket (that of the Confederate is so short that it must be painted as a sort of doublet) and breeches and puttees which will do as they are. Cut away packs, and replace the very thin rifle with a pin. A second pin is pushed up through his stand as a rest.

ECW or 30 Years' War pikeman

You will need at least one of these to every two of the musketeers. Again, several figures could be used, but I have employed Japanese World War 2 infantry, as having suitable jackets, breeches and hose (puttees) and including several suitable pos-itions.

All belts and equipment detail must be cut away and/or smoothed down with a hot knife blade; a corselet, if required, can sim-ply be painted on; tassels may be added from household foil, attached with Uhu. You



could give them felt hats like the musketeer, or morion helmets or 'pot' types (for the latter use World War 1 French Infantry heads), but the Japanese cap can be con-verted into a lobster-tail pot by being cut to a rounded shape, leaving the peak, and hav-ing a foil neck-guard added as shown. Hel-met and corselet look most effective if painted in shiny black or black-silver mix, to contrast with matt painted clothing. Jacket skirts would be buff, but sleeves probably of a regimental colour. Breeches most likely grey or brown; stockings grey or un-bleached wool, with coloured ribbons painted in at knee. Pike is of course of thin wire, thrust through holes already made using a pin in a pair of pliers.

Turkish cavalry

Again, these could serve, with only minor changes, in Persian, Muscovite, Mameluke, Mogul and other Eastern armies. The two shown are both based on the horsemen from the Arab set. Whereas Western cavalry have to have pistols attached, Easterners need bowcase and quiver, made as shown in the diagram. The basic Arab figure needs little modification, the main change being in head-dress. The light cavalryman's turban could be made of Plasticine, but a stronger alternative is to melt the end of a piece of the sprue on which the figures come, over a candle. When you have a molten lump of suitable size, jab it down on top of the

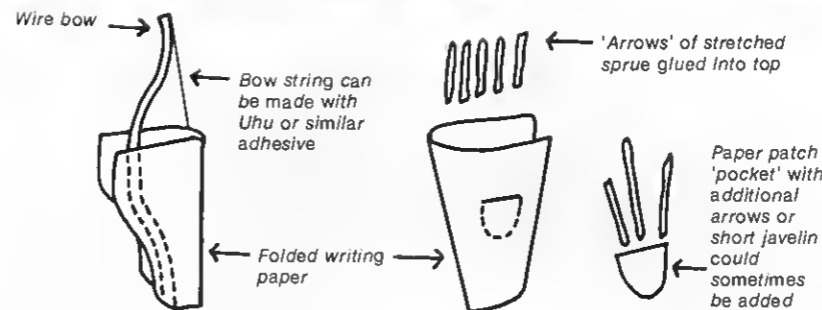


AIRFIX magazine



Facing page Turkish light cavalry standard bearer, based on an Airfix Arab horseman.

This page The 'Croat' cavalryman based on an Airfix Waterloo British hussar. Right Turkish Spahi.



Above How to make a bowcase and quiver for Eastern cavalry.

Opposite page, far left 17th Century musketeer based on the Airfix American Civil War Confederate. Left The 'universal' 17th Century cavalryman. In this case a Cavalier, made from the Airfix French Waterloo cuirassier figure.

This page below 17th Century pikeman based on Airfix Japanese infantry of World War 2. Right Janissaries, based on Airfix French Foreign Legion figures.

figure's head, to which it will weld itself; drop it into a bowl of water to cool quickly, then cut off sprue and cut turban to shape. It needs a bit of practice, but is proof against careless handling, unlike the Plasti-cine version.

The Spahi or heavy cavalryman has a helmet cut from a World War 1 German and glued on, with a nasal of stretched sprue and a neck-guard of tissue painted as mail.

Both have shields, and for strength and speed I have used drawing-pins stuck into the figures, which look quite good though they are actually a little too large. The light cavalryman's horsetail standard is a large-headed pin, with a tail actually cut from a 'dead' Airfix horse; the Spahi has a pin lance stuck through his hand and decorated

with a paper pennon.

Dress could be richly-coloured, greens and blues being favoured, with possibly hussar-style frogging on the chest; turbans white with red cap in centre; boots usually yellow.

'Croat'

A very useful figure this, which can serve not only as a 30 Years' War Imperial Croa-tian irregular, but also with minor mods and changes of weaponry as a Hungarian, Cossack, Delli or even Tartar. What is more, very little conversion is required. Just take a Waterloo British cavalryman (Hussar), cut his busby down to about half height and add a trailing pointed cloth crown from Plasticine; for a Croat add holstered pistols and heat-weld on a carbine (cut from an infantry figure) slung on his right from a belt represented by a bit of stuck-on foil; paint in reds and browns, with the saddlecloth perhaps painted as a leopard-skin or sim-ilar, and you have him!

Turkish infantry

The Arab foot figures from the set whose cavalry you have already used are not wasted, but can provide excellent irregular infantry ('Azabs', 'Bashi-Bazouks'); the standing figure is best, requiring only a wire spear or bow and a turban made as already described. Spearmen would have a shield either round or of the shape shown. This can be cut from thin card or plastic card and





Turkish irregular light infantryman.

glued to a flat cut on the arm to receive it; joint can be strengthened by the addition of a small plastic or paper 'strap' glued behind the shield and round the arm.

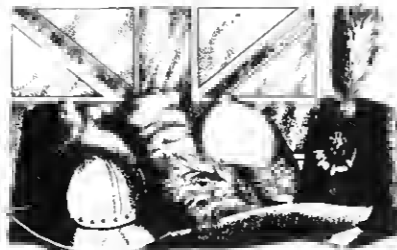
The Turkish regular infantry, the famous Janissaries, can best be made from the Foreign Legion figures, which already have suitable turned-back coats, breeches and 'stockings'. Main work is cutting away packs, etc — a pouch can be left attached to the waistbelt. The cap is cut down to a stub, and a paper or foil flap glued over it from the front, to hang down the back as shown; a piece of sprue is glued at the front as the gilt plume-holder which was worn, and on some figures I have added a plume from a bit of partly-unravelling thread.

Sword in scabbard can be a pin as previously described — In this case slightly bent, but on some of the figures it is possible to use the existing bayonet-sabbard, the lower part being cut free from the coat and bent slightly, using a heat-source to soften it.

They are painted dark blue, with yellow sash and stockings; cap white with gold base and plume-holder; plume grey. A black line on the face indicates the customary Janissary moustache.

As this is my last article for *Airfix Magazine* on Renaissance soldiers, I would like to thank all those readers who have written or spoken to me expressing interest. I hope the series has done something to open up a neglected but fascinating period to the military modeller and wargamer, and would again suggest that those interested contact the Pike and Shot Society (Treasurer Pat Wingfield, 95 Springhill Drive, Crofton, Wakefield, West Yorks, annual subscription £2). The society produces a magazine, *The Arquebusier*, runs a wargames championship, and generally aims to cater for those interested in this period rather than the very successful Society of Ancients does for those interested in that era.

For more in-depth information on this period and the figures described above, read the author's new book *Renaissance Armies 1480-1650*, published by Patrick Stephens Ltd for £4.25. Ed.



british army uniforms 1660-1900

15th (The King's) Light Dragoons c 1778, by Bryan Fosten

THIS FAMOUS regiment, later to become the 15th Hussars, was raised in March 1759 under the command of Lt General George Augustus Eliot and was also referred to as Eliot's Light Dragoons. It was the senior of a group of similar light cavalry regiments

raised in 1759 and 1760 and soon attained an elitish quality which began to attract young officer recruits from many wealthy and influential families. Eliot's probably gained an additional interest from important young men because of their early battle record. Only one year after their raising, on July 16 1760, they gained a magnificent victory by smashing five battalions of fine French infantry at the Battle of Emsdorff capturing many standards and cannons in the process. One of the squadrons in this action was led by a young Cornet, John Floyd, who was only 12 years of age! This victory was considered important enough to warrant the right to wear a 'battle honour', one of the very first of its kind, on the front of their caps.

The well documented 1768 Clothing Warrant describes the uniform for the NCOs and troopers as being red, faced with blue, and with half-lapels and white metal buttons set on in pairs. The regiment had the honour of wearing the King's Crest (The Lion of England) set within The Garter and with the Royal Crown above as its regimental badge on all the appointments. The holster caps and the housings were white decorated along the edges with the Royal (red gold and blue) lace. The trumpeters and the hautboists (musicians) are described as having red coats with blue facings all decorated with Royal lace.

The Warrant goes on to say that the coats, of the private men of the light dragoons were to be belted to the waist, to have the sleeves turned up with the colour of the lapel and an epaulette on each shoulder. The sergeants had a silver buttonhole lace, a narrow lace round the collar and also had epaulettes. These epaulettes were the colour of the facings with a narrow silver lace round it and a silver fringe. The sergeants wore pouches like their men and had sashes of spun silk around their waists with a central stripe of the facing colour. The corporals had a narrow silver lace around the top edges of their cuffs and also wore epaulettes. These had a white silk tape around the edge and a white silk fringe. The light dragoons wore half black gaiters.

Continued on page 222

A captain of the 15th Light Dragoons based on the portrait of Captain Lord Ferrers. Note the distinctive cross-hilted sword and the silver buckle and tip to the sword belt. Other Light Dragoon regiments had a breast plate or clasp.



LANCASTER DAMBUSTER IN 1/48th SCALE

While this Lancaster in its standard B.1 Bill form won justified fame for its immense contribution to Britain's bomber offensive against Germany in the 1942/45 period, the aircraft earned an extra place in aviation history for its dramatic use in a number of hazardous special operations for which it required considerable modification. And the crews who flew the modified Lancasters on the special missions required, in turn, a special brand of courage and efficiency. The selection of the Lancaster bomber for the special missions was conditioned by the fact that it was the only bomber in service in 1942-43 which had a big enough bomb-bay and big enough lifting capability to carry the heavy bombing effort against Germany. The rugged character of the Lancaster, its viceless flying performance and tough airframe all helped the machine to be successful in its new "special" role.



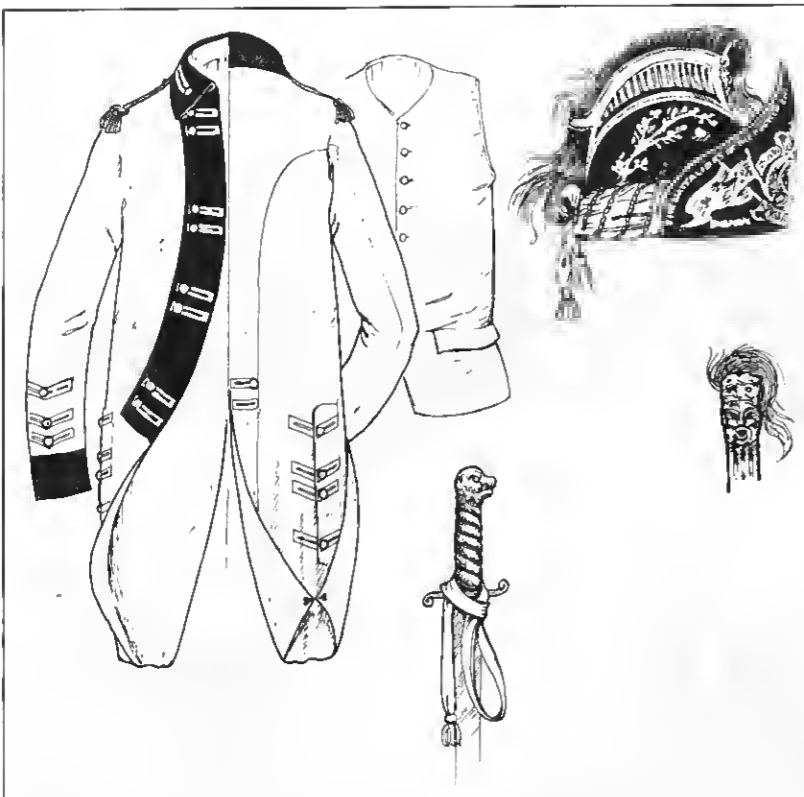
LANCASTER MKI (SPECIAL) AND "DAMBUSTER" LANCASTER

May be built into one of two models. A "Dambuster", carrying the famous Barnes Wallis "Earthquake Bomb" which was 7 ft. in circumference and shaped like a garden roller, or as the Mk I (Special) carrying the Grand Slam 10 ton bomb, another fearful invention of Barnes Wallis. Whichever way you choose to build your 1/48 scale model of this exciting new Tamiya Kit, observe the following features:

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- Beautifully moulded clear parts.
- Full painting instructions.
- Parts included for building two of the four Merlin Engines.



RICHARD KOHNSTAM LTD., 13-15a HIGH STREET, HEMEL HEMPSTEAD, HERTS.



Above An officer's coat, waistcoat and sword hilt. The sword knot of this regiment was of white leather. Introduced in 1768 it replaced the earlier knot of crimson and gold lace. Also shown is a typical waistcoat of the period. **Above right** The helmet with its elaborate front plate. The regiment retained the same helmet until 1789. During the period it was in wear the front plate changed several times. A coloured photograph of one version of this beautiful helmet is shown in W. Y. Carman's book, *Head Dresses of the British Army Cavalry*.

Continued from page 220

The first guidon of the regiment was crimson silk and was made smaller than those of the heavy cavalry. The device in the centre of the flag was the Rose and Thistle conjoined with the Royal Crown above. Beneath was the Royal Motto on a scroll. In the first and fourth corners (called compartments) on a blue ground was the springing white Horse of Hanover and in the second and third 'compartments' on a similar facing ground the number of the regiment 'XV' in gold.

The second and third guidons were blue with the Regimental Badge in the centre. The White Horse appeared on a red ground in the first and fourth 'compartments' and the united Rose and Thistle on a similar red ground in the second and third. The third guidon was distinguished from the second by a figure '3' on a red ground set beneath the central badge.

The following description of an officer of the regiment is based on a portrait of George, Baron Ferrers, the eldest son of the Marquess of Townshend who served as a Captain in the regiment, painted by Sir Joshua Reynolds, and the inspection report

of 1777 which indicates that the officers had silver lace.

The helmet

A skull of black polished leather with a pointed front plate. In the centre of this polished front plate, the regimental badge with 'Emsdorff' below the Garter, on a scroll and with the title of the regiment 'THE — and — KING'S', on either side of the Garter. The Garter itself was lettered 'HONI SOIT QUI MAL Y PENSE'. On each side of it were French flags with Fleur de Lys and other devices representing the honours gained at Emsdorff. Over the skull of the helmet was a metal crest, riveted to the skull part with a narrow flange, and with a fluted decoration along the sides. On the front of this crest was a Gorgon's Head and sewn along the top edge a red horsehair mane. The sides of the skull were further decorated with a ribbing made up of sprays of metal leaves. Around the base of the cap was a blue pleated turban, the ends of which looped up over a metal hook at the back end of the crest with cords and tassels pendant. The turban was bound with fine chain.

It is interesting to note that several ver-

sions of the decorations to this cap have been recorded. Most modifications appear to have occurred to the front plate and probably reflect its appearance before and after the awarding of the battle honour and of receiving the title. For example, one version has a narrow metal fillet edge to the front plate lettered 'FIVE BATTALIONS OF FRENCH DEFEATED & TAKEN / BY THIS REGIMENT WITH THEIR COLOURS & NINE CANNONS ON THE PLAINS OF EMSDORF JULY THE SIXTEENTH 1760'. In this case the central badge remains the same but the motto scroll beneath the badge reads 'MEREBIMUR'. All devices on this head-dress were stamped in the leather and decorated with silver.

The coat

Scarlet coat with a blue folded-down collar, blue half-lapels and blue cuffs. The lapels reach to just below the waist. Each collar front decorated with a square-ended loop of lace and button. Each lapel similarly decorated with four pairs of similar loops and buttons. The narrow round blue cuffs are plain and there are a pair, and one single chevron of lace above the cuffs on each sleeve, all with the central button. The skirts of the coat reach to just below the buttocks. Each skirt was turned back to reveal the white shalloon lining and had an ornament, probably butterfly-shaped, at the junction of the triangles of the revealed white linings. At waist level at the rear were two hip buttons. On either side of these buttons were two pairs of chevron-shaped loops. Between the buttons were two horizontal lace loops with a further two similar loops directly below them. The Regimental Inspection Report for 1777 indicates that the officers had silver-laced buttonholes and had black gaiters. (The painting of Captain Ferrers by Reynolds appears to have gold lace.)

The waistcoat

White cloth without lace or embroidery and with cross pockets.

The breeches

White cloth. The tight-fitting gaiters were made of black linen and had a small black stiff top like a boot cuff. They had black garters, black buttons and uniform buckles. On some duties light dragoons wore half length gaiters. Spurs were buckled on.

The officer wears a crimson net silk sash around his waist, over the waistcoat and under the coat. The plain white sword belt is worn over the right shoulder and has a simple silver buckle and tip. The sword is of a distinctive pattern, worn only by the 15th. Exceptionally long-bladed, it has a simple cross hilt without a knuckle guard. The pommel is a lion's head.

Light Dragoon officers were armed with two pistols with 9-inch barrels and when on dismounted duties with their men they carried fusils and bayonets until about 1776 when they took to carrying swords, drawn and carried over their left arms, as heavy cavalry officers did when parading on foot.

AIRFIX magazine

MiG-21 MF 'Fishbed J' in 1:72 scale

Conversion from the Airfix kit by Tim Perry



THE FAMOUS MiG 21, mainstay of the Communist bloc fighter squadrons, has had a long history of shortcomings but, rather than build a complete new aircraft, its designers have continually improved upon the original airframe, increasing its range and armament capacity. This has produced a large family tree, the latest models having little in common with the original aircraft.

Even so the basic shape of the aircraft has remained and conversions are relatively uncomplicated, being a matter of edging all the improvements which have been features of previous marks. Thus the MF version, compared with Fishbed C, the Airfix kit (on which this conversion is based) has a longer, wider nose and intake, more powerful engine, larger fuselage spine, broad chord fin, and a conventional cockpit canopy (which, incidentally, hinges on the starboard edge like a Bf 109). Also the breke parachute housing has been moved from under the fuselage to the base of the fin, the armament has been improved and the avionics updated. Even so, Fishbed K has an even larger spine containing more fuel and better avionics (see the *Observers Book of Aircraft* 1975, pp 138-9).

In this conversion I have used plastic materials throughout, but this doesn't mean you must too. By all means use balsa or gelatin (a very even, fine grained wood) or whatever; this article is only a guide.

The fuselage

The majority of the work is concentrated on the fuselage. First, add any cockpit detail, like instrument panel, side consoles and joy stick. Personal taste and skill will dictate how much is built, but don't add the ejector seat as it will obstruct work on the spine.

The fuselage halves can be stuck together and when dry the cannon blisters, ventral fin, spine and fin leading edge removed with razor saw and knife blade. Cement the intake (part 5) in place, remove the point of

the bullet to the level of the edge of the intake and then cement a 12 mm disc of 30 thou plastic card on to the front of the intake. This provides a dam for the putty which is now gradually layered on to the nose. The layers extend from the leading edge of the wing root fairing to the plastic card dam. Avoid thick layers of putty because the solvent in the putty dissolves plastic card more effectively than liquid cement — this I found, to my cost and annoyance, while making a scratch-built TSR2 model. When applying the putty avoid filling the nose wheel well and overflowing into the cockpit. When sufficient has been applied and is thoroughly dry it can be sanded to shape. I used fine emery paper taped to a six-inch rule, and plenty of water. This is quite a messy job so put plenty of newspaper on end around your work surface.

Now the fuselage spine can be tackled. Five pieces of 60 thou plastic card are cut to the shape shown on the drawing, three full length and two short pieces, which can then be stuck in place. Notice they are oversize, allowing scraping and sanding down to the proper size. It is a good idea to add the new fin leading edge, also 60 thou, at this stage, making sure it is centrally placed.

To produce the required section on the spine, hold the blade of your modelling knife, scalpel or whatever, with thumb and forefinger, and hold the handle in your palm with the rest of your fingers. Then, by drawing the edge of the blade along the spine, at right angles to the spine, excess material can be quickly removed in the form of thin shavings. But beware, they will blow around in the slightest draught and get everywhere. I cured the problem by putting each 'knife full' of shavings in a plastic bag. This method is also used to produce the aerofoil section on the fin. Putty is then used to fill any gaps and to fair the spine into the fin, and when dry, carefully sanded smooth. While shaping the spine beware of the

undercarriage bulges and wing root fairings, it is all too easy to damage them with a careless slip of the knife. The parachute housing is from sprue end putty.

Now fill the air brake cavity; the air brakes supplied are not a good fit so I filled the hole with plastic card, topped it up with putty and then built up the new bulge, again with thin layers of putty, letting it dry between each application. When it is thoroughly dry, the new air brake bulge can be sanded to shape, the blister being made from 30 thou, and sanded to shape.

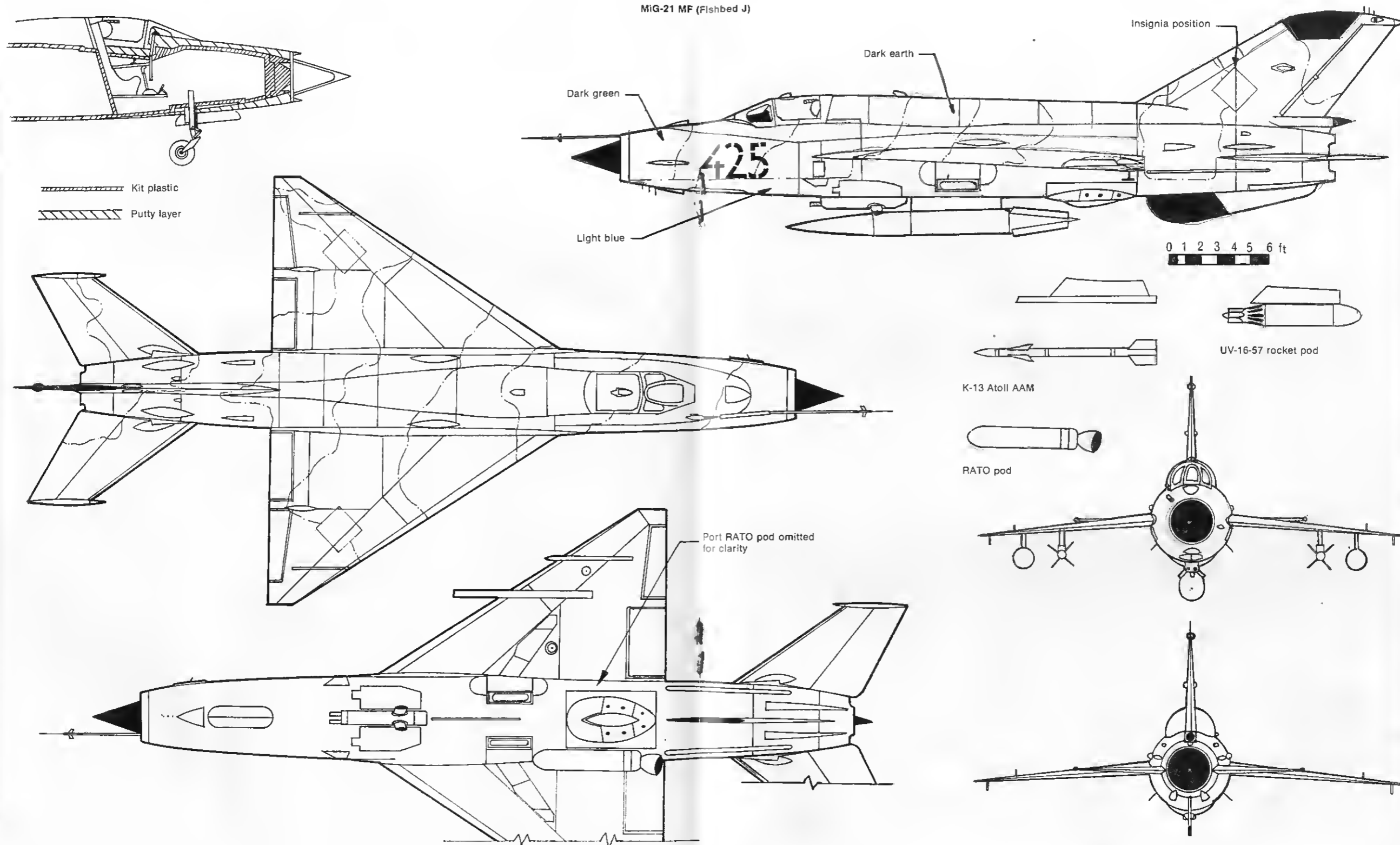
The new nose cone is cut from the long drop tanks in the Airfix F-80C Shooting Star kit (parts 48-51 inclusive) but other drop tanks will fit the bill. If there is nothing in your spares box that fits, it's an easy matter to carve one from laminated plastic card or balsa. True up the edge, check its length against the drawing and cement it to the plastic card disc. Make sure the nose cone is central and then leave to dry.

To make the intake leading edge and the extended tailpipe, cut strips of suitable width, 20 thou thick and about 10 cm long. Curl them by pulling each strip from under the edge of a rule. They can now be coiled to their respective diameters, both being two laminations (ie spirals, two complete circles). The rings are then glued with liquid cement, and when dry trimmed to complete circles and stuck in place. When dry they are carefully blended into the fuselage with putty. When dry sand the rings and putty into the contours of the nose and tail pipe. The side notches are cut with a sharp knife. A new ventral fin is now cut from 30 thou plastic card, the edges sharpened with emery paper and glued in place.

There now follows a list of various bumps and bulges, all made from 30 thou plastic card, stuck in place and then sanded to shape when dry.

Boundary layer exits ahead of the canopy and nose wheel well; auxiliary intake on the fuselage spine; angle of attack sensor on

MiG-21 MF (Fishbed J)



the port side of the nose; and after burner coolant air intakes, either side of the ventral fin. The wing root fairing leading edge can be sharpened up with a file. The brake parachute stowage and fairing is built up with plastic card and sprue and faired into the fin with putty. The GSh 23 23 mm twin-barrelled cannon pod can be made from two laminations of 60 thou.

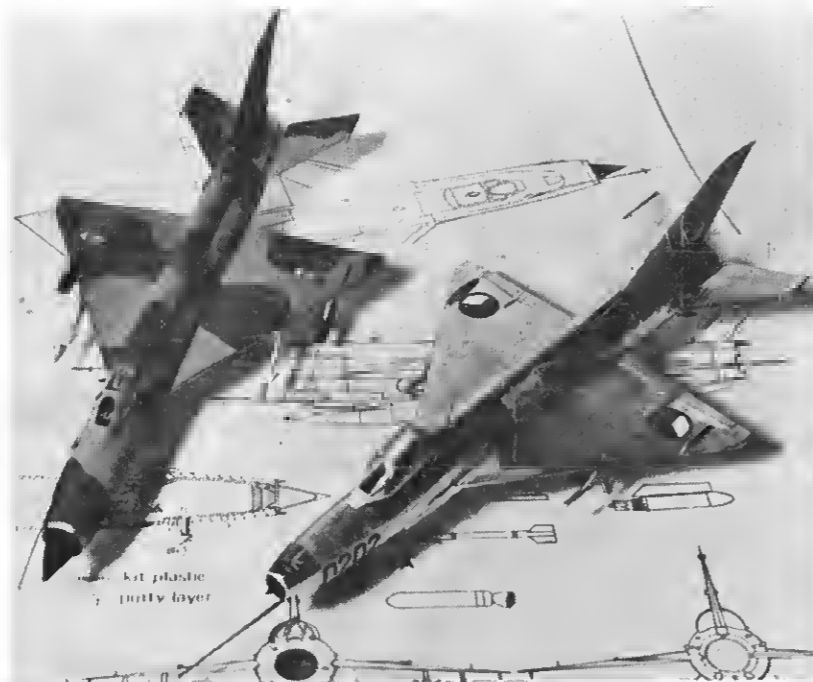
The air brakes above the cannon pod can either be painted or panned in with black paint or, as I did, cut the 10 thou plastic card, curved with the rule like the intake strip, and cemented in place, open a millimetre or so. If this is done it is better to leave them until later as they could be easily damaged while work proceeded elsewhere.

Underwing stores

During any gaps in work on the fuselage, eg waiting for putty to dry, work on the weapons can be carried out. This mark of MiG 21 can carry a variety of stores and I chose one 108 gallon drop tank, two 'Advanced Atoll' K-13 AAMs and two UV-16-57 rocket pods. Because the original aircraft was only designed to carry Atoll missiles under the wings only one pair of pylons were fitted, and they were attached very near the undercarriage walls. Thus when drop tanks were specified they could only go under the belly or on new outboard pylons, because there was no room on the inboard ones. Other store combinations are used but the ones on the drawing seem to be the most popular.

The drop tank needs modification around the tail; cement the two halves together and when dry saw off the complete tail cone. Then, either using thick sprue or part of another drop tank, replace the old tail cone with a straight sided cone. New fins are cut from 20 thou (see drawing).

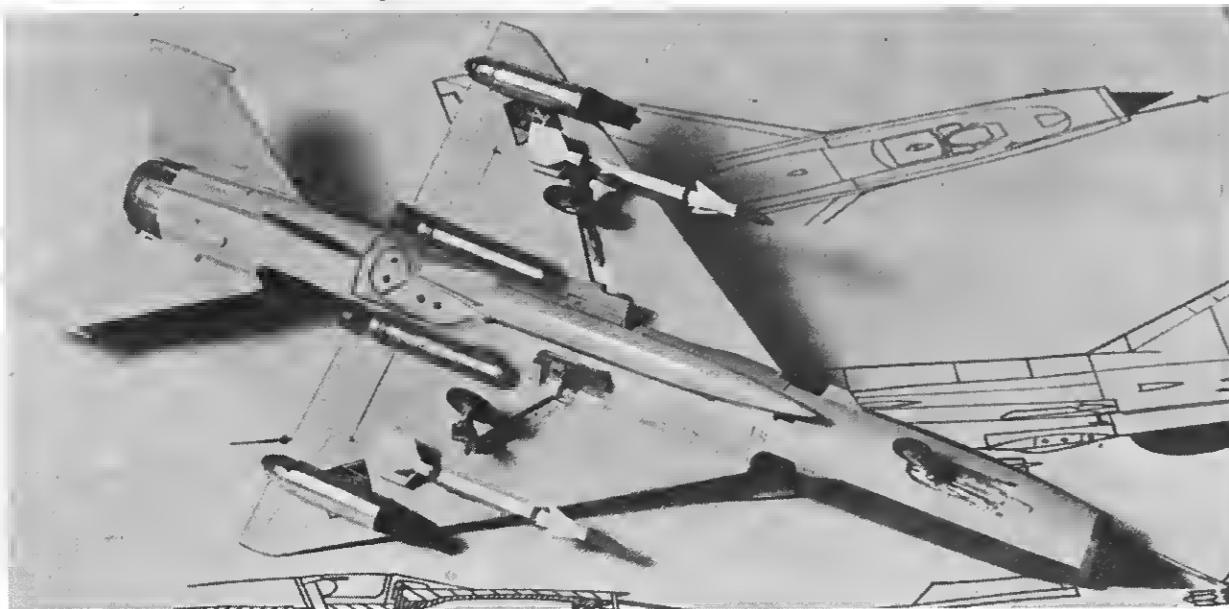
The Atoll missiles supplied in the kit show well that this missile is a direct copy of the American 'Sidewinder' infra-red homing



Above Author's Fishbed J model in East German markings on left, with basic Airfix MiG-21 featuring open canopy and Czech markings on right, clearly illustrating the considerable differences between the two variants. (All photos accompanying this article by David Odey.) Below Underside view of MiG-21 MF showing underwing stores.

missile. Indeed, an encounter between Chinese Nationalist and Chinese Communist aircraft resulted in a Communist

MiG 15 getting home complete with unexploded Sidewinder stuck in its fuselage (the proximity, contact and self destruct fuses all failing). The missile undoubtedly found its way into Russia where it was copied. More modern versions of the missile, like the modern American Sidewinder, have a longer nose containing more sophisticated homing equipment. The longer nose can be made with stretched sprue or cut from a spare missile, glued in place and sanded to shape. For a better scale appearance, cut away the fore fins and replace with ones cut from 10 thou plastic card.



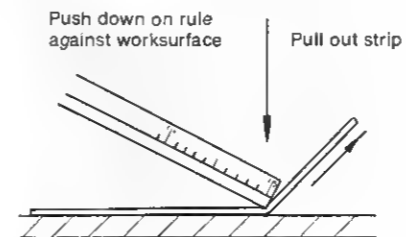
The UV-16-57 rocket pods are slightly more complicated; take two MATRA pods from the Airfix HS Harrier kit. Assemble them and when dry cut a groove on the nose cones, level with the trailing edge of the front rocket tubes. Then, by carefully paring away the front tubes, the noses can be reduced to a truncated cone with a central spike, the width of the resulting ledge being the diameter of one rocket tube. Now, streamlined barrels can be made from stretched sprue or plastic rod. The gaps between the barrels should be filled with putty and shaped with a sharp blade so as to continue the streamlined fairing that covers the outer tubes, between the new inner tube muzzles (see drawing). Then cut off the rear 6 mm and replace with a half-egg shaped piece of sprue. The join can be filled with putty and sanded smooth. Pylons are cut from 40 thou plastic card.

Don't fit the underwing and fuselage stores until all the painting has been finished and transfers applied. RATO pods are also made from thick sprue (that between Airfix F-4 Phantom upper wing panels is ideal).

The canopy

Fishbed F saw the return to conventional cockpit canopies. The one supplied with the Airfix kit is in one piece and hinges for access at the bottom edge of the windscreen. If the pilot had to eject, the canopy hinged about trunnions behind the headrest, after being released from the front hinge, and folded over the front of the ejection

Diagram showing how to make the intake leading edge and extended tailplane parts by pulling strips of plastic card from under the edge of a ruler, as described in the text.



tor seat, protecting the pilot from the supersonic blast. But because the shield took precious milliseconds off the time to parachute deployment, it was more of a hindrance during the subsonic, low-level landing and take-off phases of flight, the times when accidents are most likely to happen. When it was found normal flying clothing provided adequate protection against the blast, a normal side-hinging canopy was fitted and it is with this type the MF version is equipped.

There are many ways of producing new canopies for models, all documented fully in previous articles as well as in several modelling books, so I won't go into details now. However, I did use an idea I haven't seen in print, which readers may be interested in. First carve a wooden male mould and female hole, as illustrated in Chris Ellis' book *How To Go Plastic Modelling*. Then mould one canopy in clear acetate and one using 30 thou plastic card. The clear canopy is trimmed to fit over the cockpit and then dropped into the opaque moulding which is trimmed to the same size. The clear moulding is then put aside and the plastic card one put back on the mould. The frame lines are carefully drawn in and then with a very sharp blade, the clear portions cut away. Thus the mould provides a solid backing against which to cut (watch your fingers!). However, this does ruin the mould, so make three or four clear and plastic copies, in case you damage one in the cutting stage. The resultant (very flimsy) frame is glued over the clear moulding, making a more realistic canopy. Do not use polystyrene camants as these will dissolve the frames, use white (PVA) glue instead, diluted with water and applied with a brush. The rear view mirror fairing is made from a scrap of sprue and stuck in place using white glue.

An ejector seat must now be made, unless you are satisfied with the rather bare one supplied in the kit. It is then painted and cemented in position, a gun-sight attached to the cockpit coaming (the coaming being built up with putty). Coaming and sight painted, and canopy stuck in position.

The wings and tail plane can now be assembled and cemented in place, and any gaps filled with putty. The main undercarriage can be used straight from the kit

Another view of the basic kit with hinged-forward canopy.

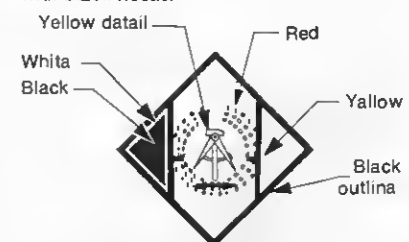
but the nose leg needs replacing, and this applies to all marks of MiG 21. 1.25 mm rod was used for the main member, with shock absorbers, anti-shimmy dampers, all added from plastic rod, the drag link assembly being stretched sprue. The actual wheel and its yoke is from the kit leg.

All the various airdials, probes, etc, are made from stretched sprue and plastic strip.

Painting and markings

The MiG 21 has served and is serving with many air arms across the world, and so there are many colourful marking schemes to choose from. I chose an East German Air Force aircraft as illustrated in this year's *RAF Yearbook* (50p), which contains masses of very useful information including cut-aways of MiG 21 (inspiration for this model and article), HS Hawk, Panavia MRCA, Sepecat Jaguar, Spitfire, Hurricane, Bf 109, Fw 190, many articles and photos about today's and yesterday's RAF, Soviet Bloc air forces, and much more.

Colours are light blue undersurfaces, with dark earth and green camouflaged upper surfaces, black nose cone and airdials on ventral and dorsal fins, and natural metal nose intake, tailpipe, undercarriage and wheels, and nose probe. Atoll missiles are white with dark gray noses and fuselage bands and the rocket pods natural metal with black noses.



East German National insignia.

National insignia were hand painted (though there may be a commercial source of these markings) and the red '425's on the nose were from Alarms German World War 2 numerals.

Wargaming Operation Sealion

Continuing last month's assessment of the basic problems, by Terry Wise

SO FAR AS the Wehrmacht was concerned, it seems pretty certain that about 90,000 men could have been landed between Dover and Brighton before breakfast time, supplemented by some 15,000 airborne troops. Regular British troops in the area would therefore have been outnumbered by more than three to one.

Airfields would probably have been seized, or at least prevented from functioning, by the airborne troops. Lympne airfield (abandoned in May because of heavy raids) and Hawkinge field are the two most likely to have been captured at S-hour. The Airlanding Division may have been landed on these fields; certainly the fields would have helped enormously in re-supplying and reinforcing the airborne troops during the first four days, after which the beachheads were expected to be secured. (An example of advanced airfields being seized occurred during the invasion of Norway, when the Germans clung to Stavanger airfield despite intensive attacks by the RAF, repairing the runways time and time again to enable the Luftwaffe to engage British

carrier-based aircraft on more equal terms and eventually gain mastery of the air.)

The Germans believed it would take the British reserves four days to concentrate for a counter-attack against the beachheads but England is a small country with (then!) a vast network of railways. An Infantry division could be shifted by 40 trains, and there were 1,000 trains and their crews standing by. If the railways functioned properly reinforcements would have been pouring into the south east corner within hours, so once again we are brought back to the question of air superiority — one of the Luftwaffe's targets was the railway network between London and the south coast. (I lived close to that broad track of main lines in 1940 and can remember the railway being attacked during the night raids of that summer, although the bombs seemed always to fall on the houses to each side!)

German mobility was almost certain to be increased by commandeering vehicles and petrol — in France the panzers refuelled at deserted garages along the way and, although steps had been taken to prevent

this happening in England, in the event it is highly likely that the inevitable panic and confusion would have helped the enemy in this respect.

At least 300 AFVs would have been ashore at S-hour, of which at least 50 would have been PzKpfw IVs and perhaps 180 PzKpfw IIIs. Both had guns the equal of the 2 pdrs of the British tanks (inferior armour penetration was counter-balanced by longer range), of which there were 348 medium and Cruiser tanks, plus 514 Light tanks. The British armour was so deployed that less than 50 per cent would have been in action on the first day, and if the Luftwaffe did achieve mastery of the air it is doubtful if 2nd Armoured Division could ever have made the journey from Lincolnshire.

On the debit side, the morale and confidence of local Wehrmacht commanders may well have been shaken when they discovered their Intelligence inaccurate regarding British dispositions (see Map 1, September issue) and found themselves facing divisions which were not marked on their maps.

When setting up a wargames campaign based on Sealion all these facets will need to be considered and allowed for. Forces, equipment, organisation and deployment have all been covered in the earlier articles of this series. Weapon capabilities, AFV technical data, warship and aircraft armament and performance etc can all be easily found in any of the many specialist books now available on these subjects. It is highly likely that there will be a dearth of volunteers to command the Nazi forces — no one likes to lose, especially after a long and involved wargame campaign, yet there does appear to be a built-in, self-destruct element to the German invasion. As mentioned last month, this fact was recognised by the Sandhurst War Studies Dept, which allowed several adjustments to history: cancellation of Hitler's order to switch from RAF targets to London; the feint *Herbstreise* to be enlarged to 10,000 troops landing in East Anglia and Scotland; and destruction of the railways between East Anglia and the south east corner.

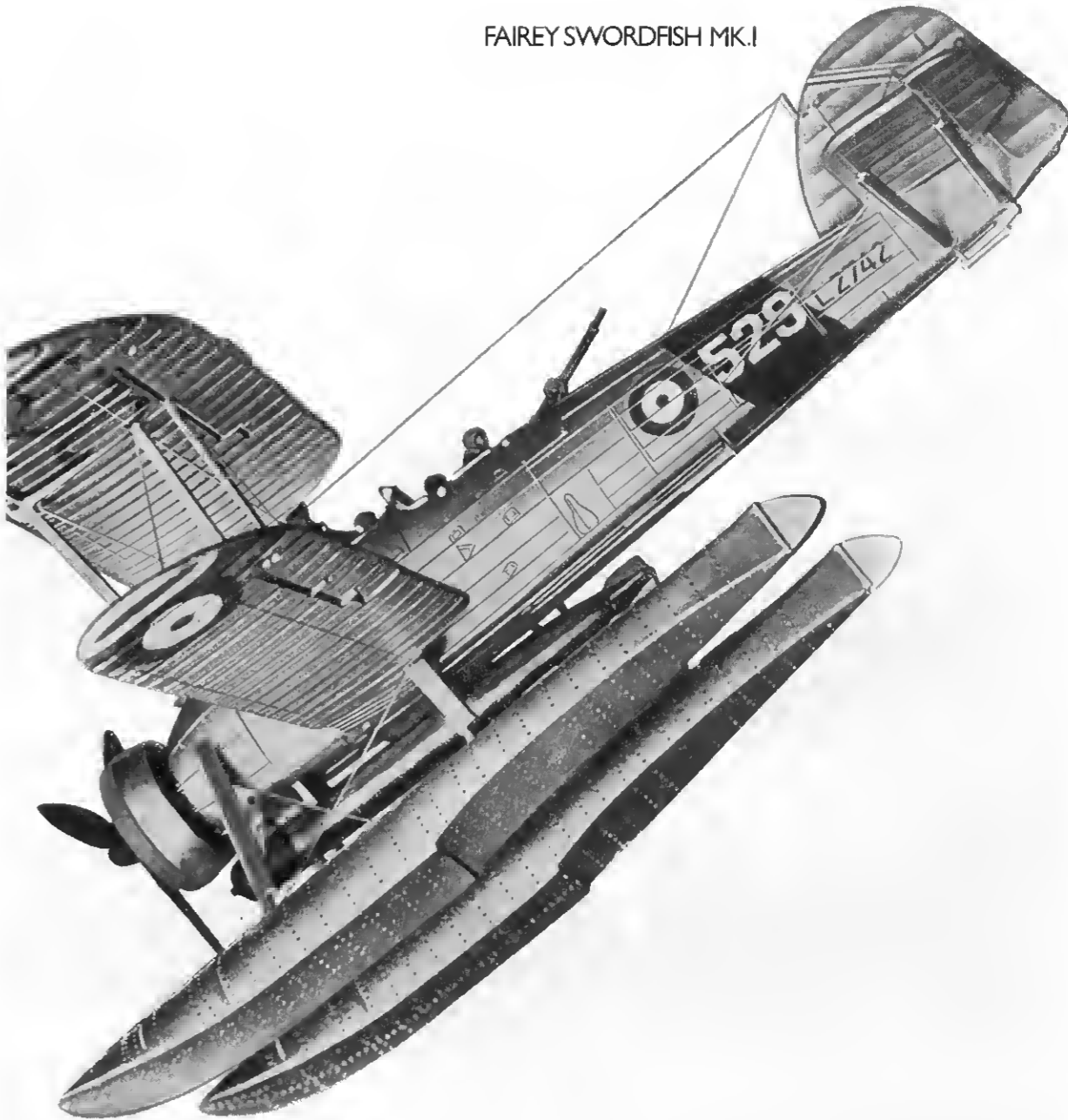
The warships involved in *Herbstreise* might have been used more effectively to protect the invasion corridors in the Channel, but otherwise these three adjustments do allow a better chance of success for the German 'general.' However, there still remains the basic weakness of the German Navy.

All sources quoted — the *Telegraph Magazine*, Cox and Forester — made their fictitious invasions in the second half of

Continued on page 230

Above left Infantry and light artillery move in to consolidate the foothold gained by the assault troops. (Models for this part of the campaign will be described next month.) Left Storm boats, launched from fishing boats and minesweepers, were used to land the first assault troops. Dinghies would almost certainly have been used in a similar role.

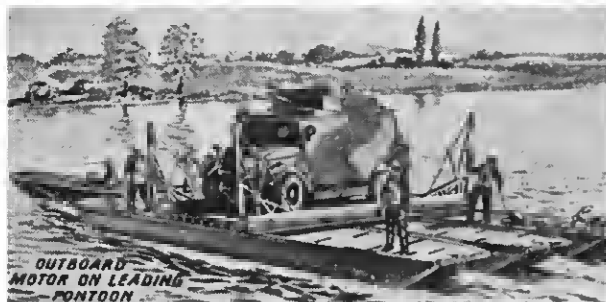
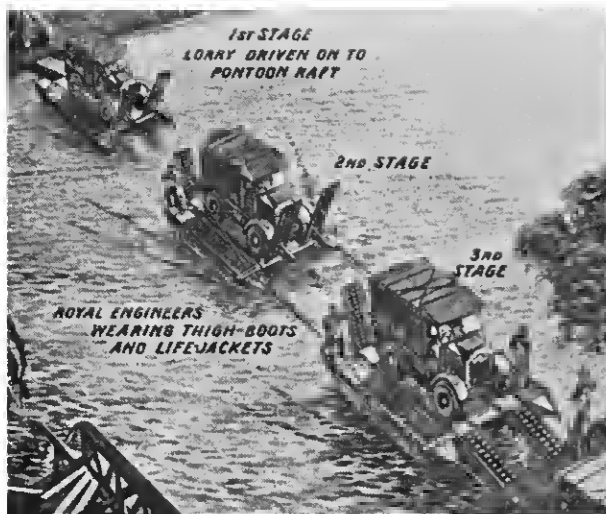
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The opposing Fleets

Type of ship	Sept	Germany early July	Britain's Home Fleet
Battleship	—	—	5*
Aircraft carrier	—	—	1*
Cruiser	4	12†	11
Destroyer	9	19	36
Submarine		ratio of 3:2 in favour of Germany	

*If the invasion had taken place in the first week of July one battleship and the aircraft carrier would not have been with the Home Fleet.

†It is not really possible to equate RN and Kriegsmarine terms. The German 'cruisers' consisted of the battle cruisers *Schernhorst* and *Gneisenau* (9 × 11-inch and 12 × 5.9-inch guns); the armoured cruisers or pocket battleships *Lützow* and *Admiral Scheer* (6 × 11-inch and 8 × 5.9-inch guns); and the cruisers *Blücher*, *Hipper*, *Emden*, *Nürnberg*, *Leipzig*, *Köln*, *Karlsruhe*, and *Königsberg*. (There were also the two Schlesien class battleships mentioned in an earlier article.)



In June 1940 Britain had only 132 of these Medium tanks, plus 103 Cruisers, with which to withstand an army equipped and trained for blitzkrieg.

Above In the actual wargame the heavy coastal gun position proved impregnable and continued to inflict heavy losses on German shipping. Left 1940 diagram of Royal Engineers transporting heavy vehicles across a river. The Wehrmacht had experimented with pontoons for shipping artillery and armour across the Channel.



September. The adjustments made for the Sandhurst game are quite logical, but could we not stretch this allowance a little further and give Hitler the foresight to grab the opportunity which, because he was involved in the Battle for France, he allowed to slip away? Raeder first suggested the invasion of England on May 21; the BEF began to leave France on the 26th. Now was the moment when history might have been changed. Had Hitler listened to Raeder's report on the 21st and ordered an investigation into the possibility of an invasion, by the beginning of June he might have pulled 13 infantry divisions, say four panzer divisions and an entire Luftflotte out of the line to concentrate in the rear areas and begin preparing for an invasion. (In June Hitler ordered the demobilisation of a sixth of the Wehrmacht.) Given the end of May for the staffs to begin their planning, and the whole of June to assemble the fleet and train the first wave, then an invasion might conceivably have been launched in early July. At this date General Ironside's defence-in-depth plan was still in force and, although the building of fortifications for the GHQ Line etc would have been under way for two or three weeks, British forces and their equipment were still at a very low level, both in quantity and quality. (A look back to articles 1 and 2 in this series will reveal how desperately weak the British Army was in early July.

A landing would have been much more successful in early July than in mid- or late September — by which date the British forces were stronger and more organised — and the U-tanks may well have settled the fate of Britain, which at that time had only some 350 medium and Cruiser tanks, scattered throughout Great Britain in penny packets.

It is even conceivable that in early July the entire Nazi airborne forces could have been dropped on London, the invasion fleet being used only as a threatening, back-up force. With the King, government and much of the capital in enemy hands it becomes doubtful if this Island would have been defended at all. The main body of the Army might have continued the fight without its head as it were, but it is quite possible that a peace would have been signed by the politicians who were primarily concerned about



German cyclists passing through the Menin Gate in 1940. At this date cyclists formed an important link in the transport system, and were highly mobile. For Sealion there were obvious advantages in cyclists — small cargo space, easy landing and no fuel.

the threat from Communism and who believed that a deal with the Nazis was, in the long term, preferable to a bloody and pointless resistance.

Even more important are the changes to the naval situation such an early decision to invade could have wrought, for then the appalling losses suffered by the German Navy off the Norwegian coast might have been avoided: — the cruiser *Blücher* sunk; the pocket battleship *Lützow* torpedoed but saved; the light cruiser *Karlsruhe* hit and later sunk by submarine; the light cruiser *Königsberg* hit and later sunk by naval aircraft; ten destroyers sunk; eight submarines sunk; nine transports sunk; and many other ships damaged. These valuable warships might have made all the difference to a crossing in July, and there were even more valuable resources which might have been used in the Channel.

On June 4 the *Schernhorst*, *Gneisenau*, *Hipper* and four destroyers sailed from Kiel. By the 23rd both the *Schernhorst* and *Gneisenau* were badly damaged and had to dock for repairs. If the decision to invade Britain had been made on May 21, or soon after, this fleet would not have sailed and when the invasion fleet was launched it is possible the German Navy could have held the Home Fleet in check.

There was one other reinforcement, the *Admiral Scheer*, raiding convoys in the North Sea. She would have been better used covering the invasion. The table shows the possible strength of the opposing fleets in July, compared to the relatively insignificant German naval forces available in September.

Next month we will return to square one and make a start on modelling some of the special items necessary for fighting Operation Sealion on the wargames table. □

Mexican 11th Infantry figure of 1847

Another 'American wars' figure from Martin Windrow and Gerry Embleton

AMERICA'S FIRST true 'foreign' war — if we concede that the War of 1812-14 was simply a tidying up of loose ends left over from 1783 — was her invasion of Mexico in 1846-47. It was a very significant conflict, for America as a nation and particularly for the US Army. It gained for the United States huge tracts of territory — Texas, Arizona, New Mexico, Utah, Nevada, California, and parts of Wyoming and Colorado. It proved the professional excellence of American commanders and — by contemporary standards — American organisation; and it marked the coming of age of her regular troops.

The difficulties of marching huge distances over harsh terrain, supporting themselves in an arid countryside, maintain-

ing their lines of supply and communication through a hostile wilderness, and keeping an army in being despite the ravages of disease, were as daunting as the military opposition they faced — yet all in all the US Army acquitted itself with remarkable credit.

No less impressive was the performance of the Mexican soldier. Usually a miserable conscript press-ganged into uniform and condemned to bad conditions, worse treatment, and appalling leadership, the peon was capable of fighting with exemplary patriotism when given the chance.

Information on Mexican uniforms is patchy, since that country's century of almost non-stop revolution and chaos was not conducive to the preservation of impeccable records of such details. Nevertheless



Completed model of the Mexican rifleman; note that we omitted the white spot-type garters. They are shown in some prints, but not in others, and there is no documentary evidence for them. In simple fact many soldiers probably fought barefoot or in sandals. The diorama modeller wishing to produce more than one figure should note that sergeants wore red fringed epaulettes on both shoulders, or the right shoulder only, according to grade; and that corporals wore a 1/2-inch red diagonal from the inner sleeve seam above the cuff to the outer seam just below the elbow. Corporals carried a finger-thick wooden switch about two feet long, to 'encourage' their men — it was usually slung by a cord loop from a convenient coat button when not in use. Suitable terrain would be arid in appearance, rocky and sandy; broken adobe walls made from expanded polystyrene packing material would be a handy 'prop' in a larger diorama. Next month we will describe a simple conversion from a 95th Rifleman to a US Infantry private suitable for 'hand-to-hand' dioramas with this model.

there is some basic information available, largely thanks to the efforts of Editions Nieto-Brown-Hefter, a group of Mexico-based military historians who have produced a series of very useful booklets on Mexico's military past. (A digest of useful information on both sides in the 1846-48 campaigns is to appear in January 1976 in the Osprey Men-at-Arms series, *The Mexican-American War 1846-48* by Philip R. N. Katcher.)

The chaotic state of Mexican military organisation led to the national army taking the field in 1846 in a patchwork of uniforms more or less in accordance with three major sets of regulations, partially obeyed, then superseded, then superseded once more, with many survivals of earlier patterns cropping up in the ranks. It is thus extremely dangerous to generalise from the particular, and we have selected our Mexican soldier from a single known area of the regulations, specifically concerned with the 11th Infantry.*

The 11th Infantry was formed in 1839, the first battalion from the Active Militia of Toluca and the second from the Active Militia of Mexitlán; it drew recruits largely from the Mexico-Querétaro area. The battalion had one rifle, one grenadier and six fusilier companies, each consisting of a captain, a lieutenant, two sub-lieutenants, one first sergeant, four second sergeants, nine corporals, a drummer, a bugler, a fifer (four buglers in cazador companies), and about 80 privates. In action casualties, disease, and desertion greatly reduced this strength. The 11th fought at Angostura (Buena Vista) in February 1847, opposing Zachary Taylor's largely-volunteer army and, with the rest of the Mexican line, nearly dislodging it from its defences in a series of



furious attacks. In April the 11th fought at Cerro Gordo against Winfield Scott's landing expedition which was marching inland from Vera Cruz. Scott's continued advance brought the 11th into action again at Churubusco in late August, at Molino del Rey, and in the fighting around Mexico City in September. Our model depicts a private of the rifle company of the 11th in the Buena Vista period; in later months the red trousers would have been replaced by the usual white duck of the Mexican peasant, and the rest of the uniform would doubtless have appeared ragged and incomplete.

The model is made from parts of the Imperial Guard Grenadier and 95th Rifleman kits in the Airfix Collectors' range, and from the new French Line Infantryman 1815 kit.

Shako

Use the body of the Rifleman's shako, with cord trimmed off; and the peak and insignia of the French Line Infantry shako, with top pompon trimmed off. You will have to file the front line of this peak slightly to get a square-cornered effect, but go gently or you may destroy it completely. Score the 'stack' of insignia across the back at the

middle of the lowest plate, bending it gently backwards so that it will fit the front of the inward-tapering 95th shako, rather than the outward-tapering French type. Very carefully file away the lower part of the tuft moulded on to the 95th shako, to produce the effect of a ball on a stem. After cementing the completed shako to the 95th head, add the chin-scales from the French Line shako.

Coat

You need either the front torso section from the French Line Infantryman married to the rear torso of the Imperial Guard Grenadier; or the complete Line torso with coat tails trimmed off and replaced by those of the Grenadier. The first method requires much trimming, offering up, filing and filling. We chose the second method. When the two halves of the Line torso are firmly set, sew off the tails along a horizontal line immediately below the top pocket button. Do exactly the same to the rear torso of the Imperial Guardsman, then cement the Guardsman's tails to the Line torso. This operation should on no account

Continued on page 234

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PRICES

Prices are correct at the time of going to press and are subject to levels ruling at the date of despatch. All goods are offered subject to availability.

*For further details see *Military Dress of North America 1665-1970*, Chapter 4, Plates 9 and 10.

Continued from page 232

be hurried. It takes time, careful trimming, and patient cleaning up after the cement is dry, but it can be done.

When offering up to check fit you can use the pocket and centre turnback detail to ensure an accurate join. When drying is complete, these areas need filing down — they are rather crudely moulded. You may have to fill with a spot of putty at the top outside edge of the new tails, fairing them into the line of the coat, but this is not hard.

Add an extra button at the top of the vertical line of buttons on each side of the plastron on the Line Infantrymen's chest, matching the spacing of the others and using buttons trimmed from another figure or shaved from a thin plastic rod. Remove turnback insignia from the coat tails. Cut the fringes away from the epaulettes of the Imperial Guard Grenadier, and file the edges of the crescents, leaving substantial fringeless contre-epaulettes; file off the odd button which appears on the outer top end of these, and cement to the coat shoulders.

Legs

Loose trousers were worn, so you can use legs from Coldstream Guard, 95th Rifleman, or Imperial Guardsman kits — we preferred the rolled trousers of the latter. The waist area may need trimming and filling — the Guardsman's stomach has a strange 'prow' which will need removal.

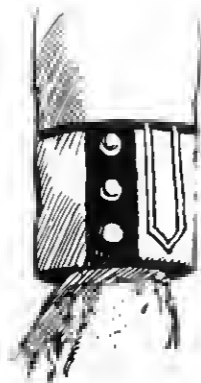
Arms

Your choice, as always, depends largely on the animation required. We used the Imperial Guard Grenadier's arms, with all cuff detail trimmed away to leave a smooth painting surface.

Equipment

Use the cartridge box from 95th Rifleman or French Line Infantry kits, slung on the usual crossbelt. Take a Baker rifle sword-bayonet from the 95th kit and sling it on the left hip from a second crossbelt. There is an oval plate to be carved from scrap and stuck on the junction of the belts, on the upper (cartridge box) belt. The Baker was the weapon of the sharpshooter companies of the Mexican Army at this time, and can be used directly from the sprue without modification. We happened to have a spare sword-bayonet, so filed away the scabbard detail and used it in the fixed position, cutting the hilt from the scabbard slung on the crossbelt.

(If you wish to add full marching equipment, use the French Napoleonic pack in brown cowhide with white strapping. A relatively smooth cylindrical cloth case was fixed to the top with white straps. It was dark blue, with a red stripe around each end right at the edge; protruding over the edge on to the vertical end faces, it made a red outer rim around these discs. There was a white circle in the centre of the ends, about a third of the total diameter across.) A wooden canteen can be added, but a gourd or skin water-bag is more likely, slung on cord. These will have to be made from scrap plastic.



Rough sketch of cuff detail of Mexican rifleman.

Painting

Complexion and hair Dead black hair, very tanned face — most of the common soldiers were Indians or half-breeds. Brown eyes. **Shako** Matt black body, gloss black peak and lower band, yellow top band, gold chin-scales and plate, green ball pompon on gold stem, tricolour cockade (red-white-green reading inwards) fixed with gold loop. **Coat** White. **Collar**, front plastron, turnbacks,* and deep straight-topped cuffs are pale blue edged with red piping. Silver '11' on each side of collar. **Red contre-epaulettes** with red retaining loops. **Red piping** on vertical three-point pocket flaps. On outside of each cuff, red rectangular slash with three buttons extending to edge of cuff only; to rear of this, open yellow pique (see sketch). This latter was the insignia of the flank companies. **Trousers** Red — originally crimson, but probably faded — in winter, white in summer. **Boots** (if worn) Black. **Cartridge box and bayonet scabbard** Black, brass furniture on latter. **Belts, garters, and sling** White. **Rifle and bayonet** Brown wooden parts, silver or dull gunmetal barrel, lock, sling-swivels and ramrod, other furniture brass. **Brass bayonet hilt** including semi-circular shell guard protruding down over right side of blade, silver blade. (If making fixed bayonet, remember to file this semi-circular shell from outside top of scabbard.) **All buttons** Gold.

A fusilier of the 11th Infantry would appear exactly as described except for a 'Brown Bess' musket and bayonet, the absence of the 'preference patch' on the rear of the cuffs, and a red instead of a green shako pompon. The outside shape of the shako plate is very similar to the French plate, and in this scale needs no alteration. The regimental number appeared in the centre of the lower semi-circular part of the plate.

Pose your model on a suitable piece of landscape, and make him dusty and ragged if you prefer that type of finish — many of these poor devils had neither coats or blankets, and suffered appallingly in the winter rains.

*There is some disagreement on turnback colour, one source giving blue piped red and another solid red. You pay your money and you take your choice...

Visit the Royal Marines museum!

It's well worth it, as Terry Gander found when he went there recently

ON AUGUST 1 1975 the Duke of Edinburgh opened the Royal Marines Museum at Eastney Barracks, Southsea. This museum is housed in the old Royal Marine Artillery Officers' Mess, and no expense or care has been withheld to make this museum one of the finest regimental museums of its kind — indeed the Royal Marines Museum is a model of what other similar establishments should strive towards, and anyone with even a slight interest in matters military should make the effort to see it.

The building in which the museum is housed is of great interest in its own right. It was built in 1864, in the Italianate style, and it is a superb example of Victorian ornateness and colour. Much of the original decoration and detail design has been painstakingly restored, with a great deal of the Mess layout incorporated into the museum — thus the museum shop was once the bar. So while visitors are going round the displays, they are constantly being attracted by the sheer delights of the colourful decor.

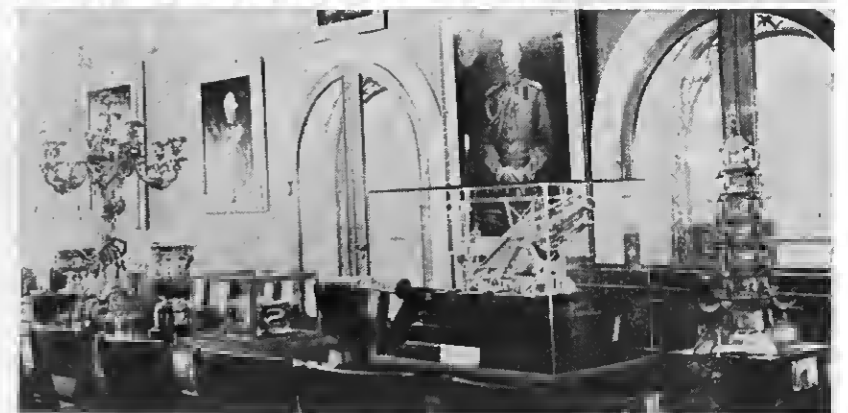
The displays themselves are magnificent, being attractively laid-out and informative. Many individual displays have the added attraction of backing up the display layout with extra audio-visual displays. A typical example of this is in the room devoted to the Royal Marine bands. The room itself is in the form of the interior of a marquee. Displays of instruments and uniforms are attractively displayed in well-lit cases and on one side, by the press of a button, a short slide and music presentation with a commentary

traces the history of the bands.

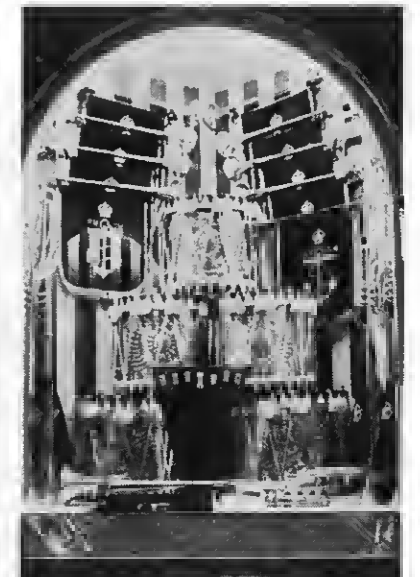
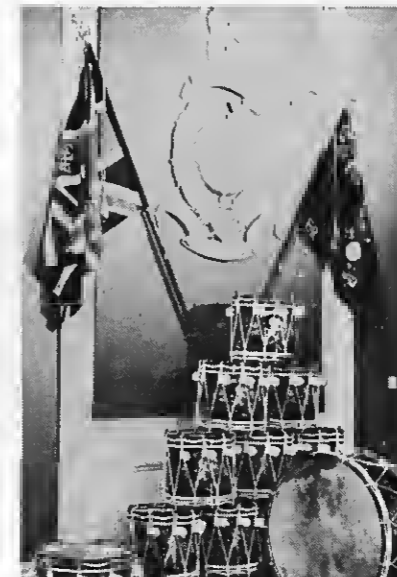
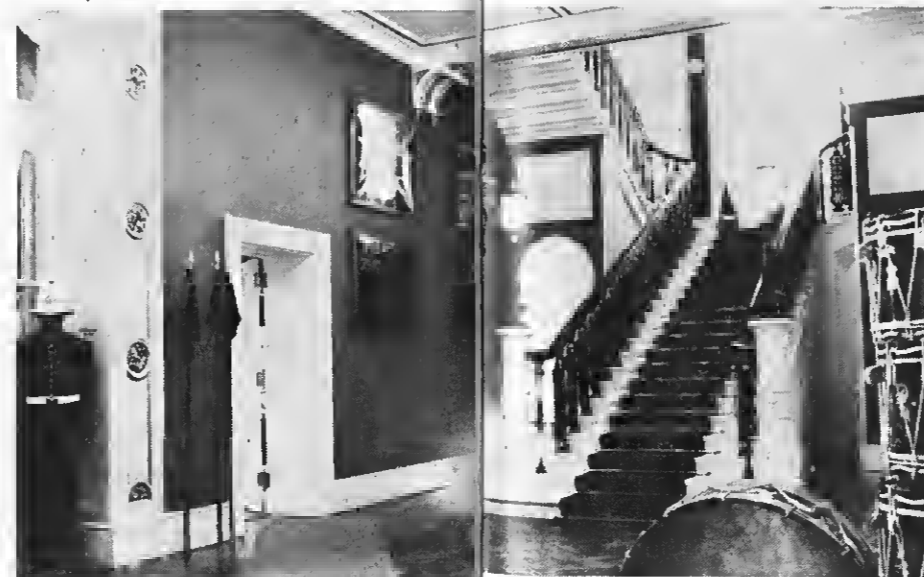
A similar process takes place on several other displays, the most elaborate of which outlines the 1918 Zeebrugge raid. Here the visitor can watch the progress of the raid on a large model where the progress is outlined on the model by spotlight indications, projected pictures, and a spoken commentary.

As the visitor enters the museum he starts in what was once an anteroom where the origins of the Marine Regiments in 1664 are outlined in an easy-to-follow display. Here can be seen a large model of Gibraltar as it was at the time of its capture in 1704, and an account of the capture can be heard on tape. This room also tells the story of the origins of the Royal Marine badge with its globe in place of battle honours (granted in 1827) and the laurels granted after the part played by the Marines at the Battle of Belle Isle in 1761. A little-known (to me) accomplishment of the Royal Marines was their part in the early colonisation of Australia and this is shown in a special display, as is the long association of the Regiment with the tiny island of Ascension.

Passing from the anteroom, the visitor enters the Entrance Hall proper. In this hall are the colours of the Regiment over the years, with the older Colours preserved in cases rather than the usual method of leaving them to hang. The main displays are in what was originally the Mess Dining Room, a magnificent room in its own right, but considerably enhanced by the collection of



Top The museum exterior. Above The Minstrels' Gallery showing a few of the silver centre-pieces. Below left The entrance hall with the Colours in their wall case. Below right The stand of drums in the entrance hall. Below right The Royal Marines Memorial Trumpets in the Band Room.



relics of the Regiment from 1755 up to the Present Day. In this room the visitor will find such items as a reconstruction of a ship's mess-deck at the time of Trafalgar. This serves not only as a small reminder of conditions on board in those days but also acts as a backdrop of the activities of the Regiment at the time of the Spithead and Nore Mutinies in 1797. Napoleonic buffs will be interested in the dining table and chair used by the great man while imprisoned on St Helena from 1815 to 1821.

The numerous Victorian 'Little Wars' are well recorded, as are the lesser known campaigns that were carried out against China up to about 1900. World War 1 has a very imaginative display featuring a small section of trench with contemporary weapons well on show. The Zeebrugge presentation has already been mentioned but a similar presentation is used for the Battle of Jutland. The formation of the World War 2 Commendos is well covered while the lesser-known 'Flying Marines' get their own display. The post-war period covers Korea, Suez and the other less well known campaigns.

Back into the Entrance Hall one can now ascend the beautiful staircase into the old Minstrels' Gallery. This has now been laid out as a dining room with silver centre pieces and a selection of regimental portraits on the walls. This room deserves close study as it contains many delights — the highlight for me was a solid silver model of a World War 1 15-inch howitzer.

Next comes the Medal room, once the Mess Billiard Room. Here the designer has done a magnificent job, for the walls are lined with cases and drawers of well-lit medals and orders awarded to members of the Regiment over the years. The main attraction of this room is the display of all ten Victoria Crosses won by the Royal Marines. To emphasise this the room is carpeted in the same colour as the VC ribbon, and the overall effect is most inspiring.

The Uniform Room has a collection of uniforms and badges from nearly all periods of the Regiment's history, but unfortunately this proved to be very difficult to photograph due to odd light reflections and stray light.

Next comes the already mentioned Band Room, and then down via the Minstrels' Gallery for another look at the silver before going down to the Entrance Hall to the shop. As well as being a shop, this room also houses a section on foreign Marine regiments, a history of various Marine barracks and a section on Marine humour, with some delightful Giles originals. The shop sells a wide range of souvenirs and books but many modellers will be interested in a series of uniform postcards specially painted by Charles Stedden for the museum.

Outside the building a small artillery park of captured weapons can be seen, and also on view is one of the massive grappling hooks used at Zeebrugge.

The museum is actually inside Eastney Barracks, Southsea, and is situated almost on the seafloor. Buses run to Eastney terminus, about one minute's walk away, and



Above One of the centre-pieces from the Minstrels' Gallery. This shows members of the Middlesex Volunteer Militia circa 1860, and was presented to an ex-Marine NCO. Below Part of the uniform display.



cars can be parked on the Parade Ground. Visitors can be assured of a most interesting and well-worth visit. The displays and surroundings are magnificent, the staff very helpful and knowledgeable, and the actual museum contents are unique. Try to go and see it. □

Part of the weapons park. The gun in the foreground is a Type 94 Japanese 37 mm anti-tank gun. Behind is a 120 mm BAT and beyond that a 30 mm Oerlikon. On the right is an ancient Krupp piece.

squadron codes and colours 1939-1956



By Michael J. F. Bowyer and John D. R. Rawlings

L7 57 OTU (c)
Formed December 28 1940 from No 7 OTU at Hawarden. Used Master 1 and Spitfire I/II. Later had Spitfire VBs, eg LV:E-P8700 (LF V), LV:R-EF541 (LF V) and LV:Y-BL426 (F VB). To Eshott November 10 1942. Unit closed June 6 1945 having used Spitfire Vs to closure.

LW 74 Signals Wing (c)
Used on Blenheim IVs, eg LW:G-V5790 and Hornet Moth LW:W5773 at Duxford 1941-42. Later at Biggin Hill.

LW Unit identity uncertain
LW has been linked with 318 Squadron at the time of its formation at Detling in 1943. An example seen wearing this coding was Spitfire IX LW:T-PT676.

LX 225 Squadron (c)
Equipped with Lysanders coded LX, eg LX:W-N2177. Letters given up early 1942.

LX 54 OTU (c)
Used on Beaufighters 1944-45 at Ellough, Eestmoor and Charterhall, eg LX:L-V8906, LX:B-KW109 and later Mosquito T11s, eg LX:H-RR281.

LY No 1 Photographic Reconnaissance Unit (c)
Formed at Heston in 1940 from PDU using assorted PR Spitfires. Used Mosquito PR 1/IVs in 1941-42, disbanded October 18 1942. Examples: Mosquito PR 1 LY:T-W4059, Wellington 1 LY:P-R2700, Hudson LY:P5138, Anson LY:W2361, Spitfire LY:P9307 and Blenheim IV LY:P-P4899.

LZ 421 Flight/66 Squadron (c)
Letters worn by 66 Squadron September 1939 to April 30 1945 successively on Spit-

fire 1s, eg LZ:K-N3043, IIAs (October 1940-April 1942), eg LZ:H-P7317, VA, VB/VCS (March 1942-November 1943), eg LZ:K-W3719, VIs (May 1943-June 1943), LF IX LZ:P-MK362, LF XVII (November 1944-April 1945). Reformed September 1 1946 with Spitfire 16Es retaining the code of 165 Squadron. Recoded HI early 1947. LZ again used from 1949 to 1951 on Meteor IVs, eg LZ:J-VZ415.

No 421 Flight formed in October 1940 from 66 Squadron at Hawkinge for 'Jim Crow' patrols over the Channel. Flight renumbered 91 Squadron February 11 1941 at Hawkinge. Had first used Hurricane 1s, eg LZ:E-Z2318, later Spitfire IIAs, eg LZ:K-P7382.

L2 No identity known
L3 406 Fighter Group (c)
Used on P-47s of 512th Fighter Squadron.

L4 439 Troop Carrier Group (c)
Used on C-47s of 91st Troop Carrier Squadron February 1944 to September 1945.

L4 No 27 MU (c)
Confirmed post-war allocation.

L5 297 Squadron (c)
Formed January 22 1942 at Netheravon. Initially had Tiger Moths, eg DE302, DE303. In February 1942 received Whitley Vs and in July 1943 equipped with Albemarle at Thruxton. To Stoney Cross September 1 1943. L5 came into use about April 1944. Received Halifax IIIs at Earl's Colne in November 1944, eg L5:L-NA400.

L6 Identity not known.
Halifax II DT796 quoted as being L6:P.

L7 271 Squadron (c)

Letters used 1944-45 on Dakota IVs based at Down Ampney and Broadwell.

L8 347 Squadron (c)
Formed June 20 1944 at Elvington, passed to French Air Force in October 1945 retaining L8 coding. Used Halifax Vs June-July 1944, eg L8:D-LK999 and Mk IIIs, eg L8:G-LW504. Mk VIs used March-October 1945, eg L8:P-PP165.

L9 190 Squadron (c)
Reformed January 5 1944 at Leicester East with Stirling IVs, eg L9:W-BK654. Converted to Halifax in May 1945, eg L9:D-PN286. Disbanded September 1945.

2L 441 Troop Carrier Group (c)
Used on C-47s of 302nd Troop Carrier Squadron March 1944 to December 1945.

3L Fighter Command Control and Reporting School (c)
Post-war allocation. Used on Spitfire XVIIs, eg 3L:N-TD343 and Oxfords, eg 3L:B-AT480.

4L 391 Bomb Group (c)
Used on B-26s, later A-26s, of 574th Bomb Squadron February 1944 to September 1945.

4L Stetion Flight Melton Mowbray (c)
Confirmed post-war allocation.

5L 187 Squadron (c)
Reputedly used on Dakotas February 1945 to December 1946.

6L 466 Bomb Group (c)
Used on B-24s of 787th Bomb Squadron June 1944-May 1945.

7L 59 OTU (c)
Used on Typhoons of No 3 Squadron, 59 OTU from February 26 1945 to May 22 1945. Examples 7L:C-SW593 and 7L:P-SW635.

7L Armement Practice School (c)
Formed at Acklington when No 2 APS arrived from Spilsby mid-1946. Letters reported to have been used until 1955.

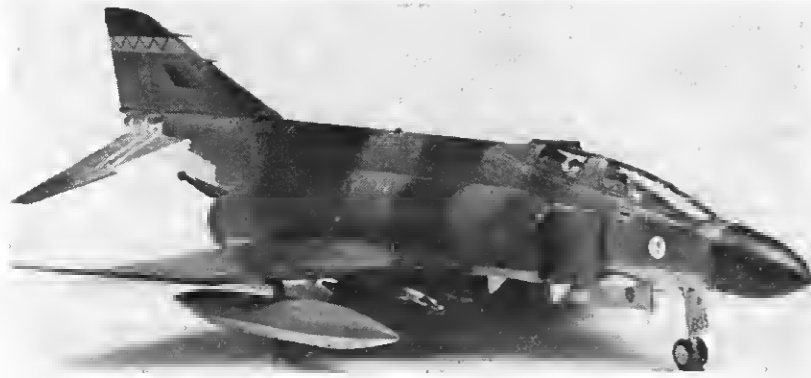
8L 92 Squadron (c)
Letters used from October 1950 when the squadron re-equipped with Meteor 8s, eg 8L:G-WA763. Replaced by squadron colours in mid-1951.

9L No identity known □



Spitfire LZ-P7490 of 66 Squadron in the winter of 1940-41 has black under surfaces to the port mainplane. It joined 66 Squadron in October 1940. Note the brightness of the new Sky trim, probably added shortly before the photograph was taken (IWM MOS63).

NEW kits and models



Matchbox open day

WE WERE RECENTLY pleased to accept an invitation to a Press Open Day at the new Matchbox factory at Peterborough to meet some of the enthusiastic staff of the works and the design department.

Lesney Products are tenants of Peterborough Corporation at Woodston on the outskirts of Peterborough where they occupy premises in a range of modern factories, part of a large expansion programme aimed at doubling the size of the City with new houses, factories, offices and jobs. The demand for Matchbox kits has necessitated this major expansion in production facilities and the factories are solely concerned with production and despatch of kits of which 70 per cent are expected to be exported.

Of course, as modellers we were interested in just how the kits are produced and we were shown first the moulds, the most expensive investment of any new model. These are not cut at the Peterborough factory but they do maintain an extensive workshop for repairs and modifications of these.

Before each run of a particular model a few test shots are run off and assembled as a check for correct fit. Constant checks are made during a run and before packing, and each 'sprue' is checked against a silhouette of parts so that any missing are immediately obvious.

Little can be seen of the kit being produced in the machines as these are completely automatic with just a steady hissing and clunking as each kit is ejected down a chute from its bowels. They are checked and packed immediately with transfers and cockpit transparencies, tracks, instructions and whatever added to the basic 'shots'.

Recent kit releases or ones which will soon be available are the Fairey Swordfish, Messerschmitt 410 and P38 Lightning in the

Above Matchbox Phantom F-4M/K (85p). Below Bugatti Type 59 (75p). Bottom Jaguar SS 100 (75p).



Orange series and Phantom F4 M/K, Wellington Mk X, Heinkel 111H and Heinkel He 115 in a new Red Series. The He 115 floatplane in particular will be a welcome issue as an injection-moulded kit of this type has not previously been marketed by any company.

AFV enthusiasts have been well catered for in the Matchbox range of kits, the Comet, PzKpfw III, Humber armoured car, Puma armoured car and Wespe SPG being particularly interesting models. New ones in the range are the Jagdpanther, Chaffee, T-34, PzKpfw II and Hannomag SdKfz 251. A high proportion of these are not readily available, some only as imported kits, so they are assured of a home in any collection. British, American and German figures to complement the tanks are also promised in the future.

The introduction of new model car kits is comparatively infrequent but Matchbox are now entering the market with an exciting new range of 'classics'. The first four which we have had the chance to examine are the 1934 Aston Martin Ulster, 1934 Bugatti Type 59, the fabulous Jaguar SS 100 with a more modern racing Porsche 917 making up the initial quartet. Can we predict that this will lead to a revival of interest in model cars? All the models are beautifully detailed, inside and out, with many

Continued on page 240

MODELBOYS

PLASTIC KIT SPECIALISTS—ASSOCIATE MEMBER I.P.M.S.

MODELDECAL DECALS

1/72 SCALE

All listed sets available:
1: BAC Lightning Mk. 1A, 2 and 6 (six alternatives in RAF service).
2: F-4 Phantom (VMFA-531, USMC; 497th TFS, USAF and 767 Sqn., RN.).
3: N.A. F-100D Super Sabre (four alternatives in USAF service).
6: U.S. Navy (F4U-1A Corsair, VF-17; SB2C-3 Helldiver, VB-7; OS2U-3 Kingfisher, 7: RAF Hunter F.6, 14 Sqn.; Phantom FGR.2, 6 Sqn.; Meteor F.4, 63 Sqn., and Harrier GR.1, 1 Sqn.)
10: USAF S.E. Asia (RF-101C, F-105D, A-1H and EC-47N).
11: F-102A, 460th FIS, USAF; Harrier GR.1, 4 or 20 Sqn. RAF, Sabre 6, 430, Sqn RCAF and alternative RCAF Sabre fin emblems.
16: USAF S.E. Asia (2): F-4E Phantom, 34TFS, 288TFFW, Cessna 0-2A 23 TASS, AC-47 432TRW, and USMC OV-10A Bronco, H-1H-267.
17: T-33, RCAF; F-35 Draken, 725 Sqn., Danish Air Force; Mosquito FB.VI, 4 Sqn. RAF, Skyhawk, 805 Sqn., RAN, and A-4K squadron markings for 75 Sqn., RNZAF.
18: Royal Navy—Post War: (Gannet 4 COD, Sea Hawk F.1., 898 Sqn., Wessex Mk. I, Ark Royal, and Avenger 6, 831 Sqn.).
19: West German Air Force and Navy (RF-4E Phantom, AG51 or 52); F-84F Thunderstreak, Jabo 33; RF-4E Phantom, AG51; Sea King Mk. 41.
20: H.S. Buccaneer S.2s, 800 and 809 Sqn., F.A.A.; NF-5A Freedom Fighter, 314 or 315 Sqn., Dutch Air Force, and L-20A Beaver, 334 Sqn., Dutch Air Force.
21: A-4E Skyhawks VMA-311 VA-94; A-4F Skyhawk, VA-164, AD-4 Skyraider, VA-65.
22: A-7D Corsairs, 356 TFS, 354 TFW, and 40 TFS, 355 TFW., with alternative decals for 357 TFS, 355 TFW; T-33A, 50 TFW., and F-86A Sabre, 116 FIS.
23: Phantom F.G.1, 43 Sqn., Harrier G.R.1A, 3 Sqn., Lightning F.2A, 92 Sqn. All RAF.
24: RAF Hunter F.6, 79 Sqn., Phantom F.G.R.2 41 Sqn., Sea Venom F.A.W.21 809 Sqn., Sea Venom F.A.W. 21 890 Sqn., F.A.A. Wyvern S.4, 831 Sqn., F.A.A.
25: Lightning F.2A, 19 Sqn., Canberra B.1(8) 16 Sqn., Harvard T.2B, 500 Sqn., Hunter F.GA.9, 45 Sqn., All RAF.
26: Buccaneer S.2B, 15 Sqn., Hunter FGA.9, 58 Sqn., Canberra B.2 10 Sqn., Gazelle HT2 C.F.S., All RAF, R.N. Gazelle HT2.
27: Canberra T4, 231 OCU, RAF, Cottesmore 1974, Hunter T7, 4 FTS, RAF, Valley 1973 (or 56 Sqn. 1962), Phantom FGR.2, 111 Sqn. RAF, Coningsby, 1974, Buccaneer S.2A, 208 Sqn., RAF, Honington, 1974.
28: Canberra E15, 98 Sqn., RAF, Cottesmore, 1974, Hunter T8, 764 Sqn., FAA, 1964, Lightning F.3, 29 Sqn., RAF, Wattisham, 1971, Jet Provost T3, 3175, 'The Swords', RAF Leeming, 1974. (Serials provided to make any one of Team)

'MODELDECAL' style fully illustrated instruction sheet, giving decal locations and full colour scheme details, is included with all Modeldecals, and commencing with set No. 17, a selection of photographs is also included.

PRICES: Sets 1 to 16 38p each Postage on all decal sets up to 2 sets 15p 3 and over 18p UK Rates.

CONTRAIL (SUTCLIFFE) VACFORMS A/C		HASEGAWA AFV KITS	
Vimy to Vernon Conv.	1/72 70p	1. Willys Jeep	1/72 40p
Manchester Conv.	1/72 80p	2. US mm. M2 Gun	1/72 40p
Avro York Conv.	1/72 80p	3. Stuart Mk. I	1/72 40p
Norfolk N-3PB	1/72 90p	4. M3 Lee Mk. I	1/72 40p
Waco CG4 Hadrian	1/72 90p	5. M3 Grant Mk. I	1/72 40p
Waco CG13A	1/72 90p	6. M3A1 H.Track	1/72 40p
Airspeed Horsa	1/72 1.10	7. M4A1 H.Track	1/72 40p
Overstrand/Sidstrand	1/72 1.10	8. Tiger I.E.	1/72 40p
H.P. Harrow	1/72 1.25	9. Panther G.	1/72 40p
H.P. Hayford	1/72 1.25	10. 88 mm. Flak 18	1/72 40p
Bristol Bombay	1/72 1.25	11. Sd. Kfz. 7 H.Track	1/72 40p
TSR 2	1/72 1.30	12. Kubelwagen and BMW Combination	1/72 40p
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S. Seaba	1/72 1.50	16. TX-40 Fuel Truck	1/72 40p
S. Stranraer	1/72 1.60	17. Toyota Starter Truck	1/72 40p
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		25. Humber II A. Car	1/72 40p

RAREPLANES VACFORMS		TAMIYA A/C KITS	
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Seinson Sentinel	1/72 90p	J2M3 Raiden (Jack)	1/72 60p
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Continued from page 238

chromed parts, lift-off bonnets, simulated rubber tyres, etc.

Not all the models mentioned are available yet but are planned for the very near future and will be included in the new catalogue, making a comprehensive collection from this comparative newcomer to the plastic kit world.

Our personal thanks go to the members of the staff for their hospitality, help and patience in answering our questions — now we can understand some of their problems of design, production and finance

Pactra paints

MORRIS & INGRAM (London) Ltd, the Poole-based importers of the well-known Badger Airbrush, have now expended their interests one stage further in model finishing by announcing that they are now distributing the Pactra range of authentic colours.

The company recently supplied a selection of these paints for us to try and they certainly live up to the growing reputation they are enjoying in the United States.

Available in sets of authentic finishes that match the already established Humbrol range, the Pactra series offer a very wide scope for the aircraft, AFV, ship and figure modeller.

Some of the sets available include: USAF (Vietnam), Luftwaffe, Japanese Air Force, Armée de l'Air, Aeronautica Militare Italiana, Russian Air Force, RAF (Europa), US Air Force, World War 1 Aircraft, Naval Vessels, Tanks and AFVs, and Combat uniforms, to mention just a few.

Each set contains six 1/2 fluid ounce jars and have a recommended retail price of £1.05, individually the jars are 15p each. Other sets going under the style of 'NAME' are 11p each or 78p per set, these contain general colours which are very useful.

The paint is very thin and is ideal for airbrushing when it dries almost instantaneously with a smooth even matt finish. Colour reproduction is very good and the paints mix together well to give an endless permutation of shades and other colours.

One particularly useful range is the 'Spacial Effects' which contain such useful items as: Mud, Rust, Weathering, Steel, Zinc Chromate (yellow and green), Brass, and two tints of one each of black and white. These colours take a lot of the headaches out of weathering and tinting but do require some practice to obtain the correct degree of finish.

Brush painting is also effective but the paint is so thin that several coats are needed and care must be taken not to get 'brush drag' over areas that have partially dried. It is best to give one base coat without overbrushing, leave this to dry, then give several thin coats, avoiding as much as possible going over the same area whilst the paint is still wet.

The warning on the boxes should be strictly adhered to, especially in the cases of thinner and varnish.

At the same time as the Pactra paints were introduced Morris & Ingram also announced they could supply Pactra cement. This comes in two versions, a toxic and non-toxic type, both of which are easy to use and most effective.



Matchbox Heinkel He 115 in 1:72 scale retails for 85p.

tive, producing good welds with no stringing.

A colour chart is available on application to Morris & Ingram (London) Ltd, 156 Stanley Green Road, Poole, Dorset BH15 3BE. But remember to include a stamped addressed envelope for their reply.

Collector's choice

SEVERAL YEARS ago Revell produced a wide range of World War 1 and 2 fighters which were above average at the time they were released. Marketed in black boxes with dramatic action-packed lid illustrations, these kits appeared to fade from the retailers' shelves and rumours of their demise started the usual hoarding by those who collect complete kits rather than make them. Any such caches thus accumulated will now fall in value as the company have recently re-issued the kits in new boxes each containing three alternative sets of markings.

In some cases attempts have been made to improve the original tools, but in the majority the kits are exactly as they were in their original guise. This does not mean that they are not good value for money, although some of them will now suffer much stiffer competition from other manufacturers who have since added better models of the original Revell subjects to their ranges.

P47D

This was one of the earliest of the World War 2 series and suffers the most from recent competition with the Hasegawa and Matchbox releases proving a real threat to sales. Although fairly accurate in outline, Revell's 'Jug' suffers from a surfeit of rivets and is a little crude when compared with more modern examples, as it inevitably will be. Markings are for Major Jackson's P47 'Teddy' of the 56th Fighter Group, an all natural aluminium machine of the 350th Fighter Group, and a Mk 11 Thunderbolt of No 30 Squadron RAF.

P40E

Like the P47 the P40 also suffers from an overdose of 'rivetitis' but does make up into a nice replica of this popular World War 2 subject. In this case the decals are for an early USAAF scheme, the ever popular American Volunteer Group 'Flying Tiger'

and 'Old Exterminator', the mount of Col Robert Scott.

P-39 Alacobra

This unusual mid-engined aircraft has been somewhat neglected by kit manufacturers so its re-release is very welcome. The canvas-covered control surfaces are well simulated but much work is needed on the engine panels and underwing cannon fairings. The model captures the general character of the P-39 very well and if time is taken on working up the less well moulded parts, a nice model results. Don't forget the weight in the nose though, or your model will definitely sit tail down.

Markings are for Lt Zad Fountain's 'Whistlin Bitches', a factory fresh P39Q-1 and a P39Q flown by the Russian ace Ivan Poryshkin, including his 55 kill markings.

Messerschmitt Bf109E

The Bf109E should really be available in as many variants as its famous opponent of the Battle of Britain, the Spitfire. Sadly this is not the case and the Revell offering leaves a lot to be desired to redress the balance.

Compared with the Matchbox version the Revell kit shows its age and there are many shortcomings in its general shape. It may have been acceptable when it was first released, but serious modellers will still probably give it the cold shoulder as a kit, although it will be attractive from the point of view of its decals, which are for a desert finished machine of Jg 27, the E-4 of Qbit Frenz Von Werra and the E-3 of Werner Mölders. An optional belly tank is provided for the E-7 but there were a few more changes than this on the original machine.

F-4U-1 Corsair

Once again the distinctive shape of the Corsair will be Revell's main hope of attracting younger modellers to this kit as, like the P47, there have been much better releases since this one first saw the light of day. However, the model is generally the most accurate of the lot and makes up into a good representation of this heavy carrier-borne aircraft. Markings are for an F-4U1 flown by Ira Kepford, a late war machine from USS Franklin and the famous 'ole 122'.

Sopwith Camel

Of the Revell World War 1 kits, the Camel was one of the most pleasing available and it is good to see it back in harness. As with all these kits there are some faults but nothing that can't be put right and the lack of serious competition from other producers makes this a good buy. Markings are for B6234 of No 3 Squadron, Capt Roy Brown's mount from No 209 Squadron and a RNAS Camel of 10 Squadron, the latter being very colourful and attractive for a machine of this period.

Fokker DR1 Triplane

Like the Camel, this kit is sure to prove popular among World War 1 enthusiasts and it is a toss-up between these two as to which is best. Assembly is straightforward and for some reason or other the finished model is much more robust than the Camel. Replacement of the struts with sprue or plastic card will enhance the finished model and the true purist will want to check the shape of the wing tips very carefully. Markings are for the aircraft of Lt Voss, Lt Kampf, and Von Richtofen.

To sum up, at the price these kits are offered they certainly represent good value for money and the majority of them can be made most attractive. One word of warning; as excellent as the Revell decals are they should be checked carefully as in the interests of economy the company have used one of the main colours to 'stand-in' for the correct ones on some serials and fuselage codes. However, all the subjects have been well documented so finding the corrections needed is not difficult, whilst doing this it will also pay to check some of the colours suggested on the instruction sheets for camouflage schemes.

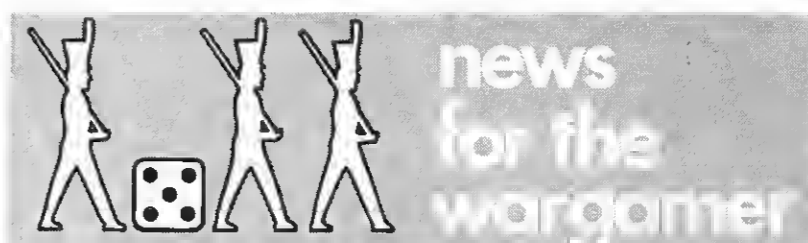
RAREplanes Fulmar

THE FULMAR is a most attractive aircraft and it is difficult to understand why it has been left in the cold by the kit manufacturers for so long. One cannot help but feel that if this aircraft had been produced by the Germans, Japanese or Americans, there would by now be at least three injection moulded kits available! As it is, modellers are saved from the frustration of conversion or scratch-building by RAREplanes who, over the years, have quite rightly established themselves as the leaders in the art of producing vac-form kits.

Instructions are clear and precise and although some of the parts included, such as wheels, and undercarriage legs, are best replaced by parts from the spares box, the kit is complete except for markings. Those who wish to 'borrow' parts from injection moulded kits may recall that a conversion from the Airfix Battle of the Fulmar was published in the August 1969 edition of *Airfix Magazine*.

As stated, no decals are included, but there are three excellent drawings included on the instruction sheet/box which give adequate guides as to those to use.

At £1.10 this is very good value bearing in mind the small production run when compared with the mass-produced injection moulded kit.



MechWar '77

THIS NEW GAME from Simulations Publications visualises tactical armoured warfare in the 1970s. Most of the given scenarios show hypothetical clashes between US and Russian armour in Europe, but also included are scenarios for Israel/Arab and Russian/Chinese conflicts. The game lends itself well to the creation of further scenarios by the players, and for this purpose British and West German units are included among the die-cut counters, and the playing map is interchangeable with that used in SPI's 'Panzer '44' to give a little variety to those who own both games.

Most of the conventional hardware currently available on the battlefield, from the humble rifle to the helicopter, can be deployed in platoon or company sized units, the vehicle units being shown on the counters in silhouette.

The rules are kept to a minimum consistent with some degree of realism and regular collectors of these games will find no innovations (do we hear sighs of relief?).

Combat is considered to be simultaneous between opposing forces, making plotting of fire tasks necessary but by no means tedious. Movement, on the other hand, alternates between players, SPI having found that simultaneous movement adds little to the game other than a lot of record keeping. This is also true of some earlier games as a recent edition of SPI's magazine *Strategy and Tactics* (No 47) more or less admitted.

A good game and a must for armour enthusiasts, 'MechWar '77' is available at £4.55 from Simulations Publications UK, Crown Passages, Hale, Altrincham, Cheshire WA15 9SP.

Blue and Gray

OBVIOUSLY THIS is a game based on the events of the American Civil War, but it's more than that because this is Simulations Publications' first Quadrigame, providing buyers with four games for practically the price of one. And worth every penny.

The four games represent the battles of Shiloh, Gettysburg, Antietam and Chickamauga. Each game has its own map (smaller than usual at 17 ins by 22 ins but all brightly coloured), blue and gray die-cut counters and special rules. In addition there is a standard set of rules applying to all four games.

The battles chosen make for exciting and well balanced play, one side usually starting with a distinct but short-lived advantage, forcing the other to play defensively until reinforcements arrive.

Except in Chickamauga, the Reds generally appear to come off worst, but that is not

to say that they don't get their chance, and anyway that is how it turned out in real life!

Players will find themselves forced by terrain and circumstances to follow the course of the original battles with surprising accuracy despite, or perhaps because of the extreme simplicity of the rules.

'Blue and Gray' is recommended both for newcomers to simulation gaming and for the old hands as an entertaining bit of light relief from the complexities of modern board gaming. Price £6.75 from Simulations Publications UK, Crown Passages, Hale, Altrincham, Cheshire WA15 9SP.

Napoleon at war

THIS IS THE title of the latest Quadrigame from SPI, and contains four playing maps and sufficient unit counters to enable the battles of Merano, Jena-Auerstadt, Wagram and Leipzig to be re-fought.

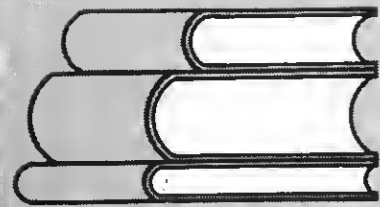
Despite the popularity of the Napoleonic period with miniature figure wargamers, board gamers interested in this period have not been particularly well served up till now, so these games are particularly welcome.

The basic playing rules are extremely simple, being based on the popular 'Napoleon at Waterloo' set. Movement is alternate, with the usual terrain affects on movement and combat, zones of control, etc. Combat is also simple, with no step-reductions to worry about. Night movement is allowed, but not night combat. Artillery bombardment against non-adjacent enemy units is also permitted.

One set of standard rules is provided, applicable to all four games, plus individual scenario folders giving initial deployments, demoralisation levels, any special rules, and victory conditions.

Unfortunately, as with other Napoleonic board games, 'Napoleon at war' does not accurately recreate the tactical capabilities and restrictions of the time, and the more ingenious player will probably wish to improve the game by devising rules for flank and rear attacks. Exposed artillery units should also be allowed to fire during the opposing player's game turn if they are being attacked, since artillery fire could and frequently did bring an advance to a halt before a *mêlée* situation could arise. Similarly, players may like to devise additional rules reflecting more individually the national characteristics of the combatant armies, and possibly also individual commander characteristics.

Overall verdict — a good one for beginners because it is easy to learn and play, but lacking the detail necessary for accurate historical simulations. 'Napoleon at war' is available from Simulation Publications UK, Crown Passages, Hale, Altrincham, Cheshire WA15 9SP, for £6.75.



books for modellers

Aviation

Airfix Magazine Guide 11: RAF Camouflage of World War 2, by Michael J. F. Bowyer. Patrick Stephens Ltd, Bar Hill, Cambridge CB3 8EL, in association with Airfix Products Ltd. **Price £1.20.**

THE IDEAL COMPLEMENT to Bryan Philpott's recent book on Luftwaffe camouflage and markings of World War 2 (Airfix Magazine Guide 10), this book contains a complete outline to the camouflage patterns and colours used on RAF aircraft of all types in all theatres during the period 1939 to 1945.

Day and night fighters, day and night bombers, coastal, reconnaissance, training, transport, army co-op and other types all fall within its scope, while there are also chapters on roundel styles, special markings and exceptions to the rule.

Each section is well illustrated by numerous photographs as well as the author's drawings (based on official wartime marking instructions), making this handy book an ideal introduction to the vast and complicated subject of RAF camouflage.

The author is well known as one of this country's foremost authorities on British wartime aircraft colour schemes, yet this book is no simple re-hash of his previous works but an original reference volume which includes much little-known information and several previously unpublished photographs. As such it will be of equal value to the newcomer seeking a sound base on which to develop his interests, to the experienced aviation historian, or to the modeller trying to improve the authenticity of his plastic construction kits, while at only £1.20 it is priced well within everyone's reach.

World War II Fighter Conflict, by Alfred Price. Macdonald and Jane's, Paulton House, 8 Shepherdess Walk, London N1 7LW. **Price £3.25.**

THIS LATEST volume in M & J's Illustrated War Studies is unquestionably one of the best yet, and a superb introduction to the evolution of fighter design and tactics on a multi-national basis.

The book describes the art of fighter design up to 1939 and how it progressed during the six years of war which followed. The improvements are noted from the viewpoints of aerodynamics, structures, power plants and armament, and reveal how designers working independently of each other in Britain, America, Japan, Russia, France and Italy tackled what were essentially the same problems in much the same way — though with some exceptions, of

course.

The second part of the book contains excerpts from recently released wartime reports of tactical trials on four of the most famous fighters — the Focke Wulf Fw 190, P-51B Mustang, Tempest V and A6M5 Zeke.

Finally, in many ways the most interesting part of the book, particularly to the growing ranks of aerial wargamers, is the section on fighter tactics, which is very well illustrated with clear line diagrams showing types of formation and manoeuvre.

Alfred Price's name will be well known to most of our readers, and his clear, crisp style makes this fascinating account all the more interesting to read. The book is also extremely well illustrated and overall one of the best aviation books of the year.

Military

Airfix Magazine Guide 12: Afrika Korps, by Bruce Quarrie. Patrick Stephens Ltd, Bar Hill, Cambridge CB3 8EL, in association with Airfix Products Ltd. **Price £1.20.**

THERE HAVE BEEN many books published on the subject of Rommel and his famous Afrika Korps, yet this is the first to be written specifically for modellers and wargamers.

It includes chapters on the organisation, vehicles, weapons and equipment of the DAK, a chronology of the desert war, and a brief biography of the 'Desert Fox' himself, well illustrated with numerous photos. Besides these, there is a chapter on uniforms, illustrated in his usual superb style by Bryan Fosten; a long chapter on modelling a variety of Afrika Korps vehicles in 1:76 scale, by Gerald Scarborough, which concentrates on models unlikely to appear in kit form; and finally a chapter on modelling Afrika Korps figures in OO/HO or 1:32 scale, by Robert C. Gibson. Altogether a veritable mine of information and ideas and, like all the books in this handy series, extremely reasonably priced.

Spanish Armies of the Napoleonic Wars, by Otto von Pivka with colour plates by Michael Roffe. Osprey Publishing Ltd, 12-14 Long Acre, London WC2E 9LP. **Price £1.50.**

THIS, THE much-heralded 50th title in Osprey's Men-at-Arms series, is a good one, although not so much a work of original research as some of the same author's other books, relying heavily as it does on Oman. However, the essential uniform information, which really makes or breaks each title in this series, is excellent, being largely drawn from Cornelius and Christian Suhr's paintings, while Michael Roffe's colour illustrations are as full of character and detail as ever.

The Spanish armies of this period have been sadly neglected by military students, modellers and wargamers, mainly because of their poor fighting record, but this book helps to put the record straight on some points and could stimulate an upsurge of interest. Let us hope so.

Medieval European Armies, by Terence Wise, with colour plates by Gerald Embleton. Osprey Publishing Ltd, 12-14 Long Acre, London WC2E 9LP. **Price £1.50.**

THE DEVELOPMENTS in weapons, armour and organisation which took place during the period of 1300 to 1500 covered by this latest title in the Osprey Men-at-Arms series were so great that it is perhaps a little too much to expect more than a general survey within the book's extent of 40 pages. But despite the inevitable danger of over-simplification the text is basically a sound précis of medieval armies of the period in question, and the lay historian or medieval enthusiast will find something of interest within.

The principal let-down is the reliance on romantic 18th and 19th Century illustrations, from the works of Samuel Meyrick and Francis Grose, to portray contemporary armour. Many of these are grossly inaccurate and Meyrick's work has often been criticised, more and more so in the past half-century. It seems a shame to resurrect such illustrations now, when it would have been so much more informative and accurate to illustrate either genuine articles of equipment where they exist or else to reproduce the original sources upon which the figures were based. That, at least, would, for instance, have shown that the lower figure on page 4 is an Egyptian cross-bowman of circa 1250 and not an early 14th Century European!

The best illustrations, of course, are the eight colour plates from Gerry Embleton, impeccably executed as ever.

Hitler's Elite: Leibstandarte SS, by James Lucas and Matthew Cooper. Macdonald and Jane's, Paulton House, 8 Shepherdess Walk, London N1 7LW. **Price £3.25.**

ONE OF THE most interesting aspects of the Leibstandarte SS division was that, although formed as Hitler's bodyguard and supposedly one of the most ideologically as well as racially 'pure' fighting divisions in Nazi Germany, in combat it rapidly developed its own unique identity and self-sufficiency without much recourse to political dogma — a fact which caused many high ranking SS officers some concern.

The Leibstandarte was created as the cream of Germany's fighting troops, and every man in the division felt himself unquestionably a cut above any other human being. In the end, as this new book admirably shows, the Leibstandarte trooper enjoyed fighting for its own sake rather than for any strategic, tactical or political reasons, and these three factors above all else — esprit de corps, individual confidence and sheer belligerence — account for its successes during World War 2.

The book begins by tracing the political background to the formation of the Leibstandarte, then analyses its unit character, training, organisation and uniforms before

moving on to study its campaigns in Russia and France. Meticulously detailed and very well illustrated with photos and maps, this is undoubtedly one of the finest books to emerge on the Waffen SS, and will make fascinating reading to all military and political historians of World War 2. Highly recommended.

Rail and steam

British Railways Diesel Locos, British Railways Diesel Locomotives and Multi Units, and British Railways Electric Locomotives and Multi Units, by A. Williams and D. Percival. Ian Allan Ltd, Terminal House, Shepperton, Middx. **Price 40p each.**

THESE THREE little books are virtually the modern train spotters' guides, enabling any of the present day motive power units to be recognised. Measuring some 6 by 4 inches they are easily carried in the pocket and at only 40p each should appeal to all spotters.

Highland Railway Album, by Anthony J. Lambert. Ian Allan Ltd, Terminal House, Shepperton, Middx. **Price £3.75.**

BY VIRTUE OF its remoteness, the Highland railway was comparatively unknown. Its strong individuality stemmed from the fact that it was upon landed rather than commercial wealth that it was established. This individuality was reflected in many respects, such as its very distinctive loco liveries, its buildings, and the fact that one of the contributors was allowed to run his own loco on the line: obviously the directors had a different approach to running a railway than their commercial rivals.

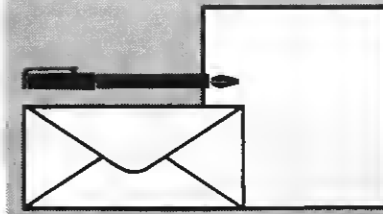
The magnificent scenery associated with the works of well-known authors encouraged a healthy tourist traffic, which offset the rather small numbers of local travellers and kept the railway viable.

The unique character of the Highland railway is well captured in this profusely illustrated album, and the author is to be congratulated on covering his subject so thoroughly. The enthusiast and modeller will both find this extremely interesting and useful, and it well warrants a space on the bookshelf.

Steam was my calling, by E. S. Beavor. Ian Allan Limited, Terminal House, Shepperton, Middx. **Price £3.50.**

MUCH HAS already been written on the glamour of steam and the performances of the locomotives, but here is a working story from inside the shed, by a Shed Master. In clear, readable chapters, the author describes his career in motive power depots, and in no way could it be called humdrum. Being concerned with the design, construction and maintenance of steam locos under varying conditions involved a number of incidents, which are related in personal contacts and anecdotes and will awaken the memories of many railwaymen of the period.

The book, which is well illustrated with a number of hitherto unpublished photographs, provides absorbing reading for all interested in railways and can be thoroughly recommended.



letters to the editor

Uniform information

I THINK SOME comment should be made on Martin Windrow's article in the October issue about the doubtful quality of many contemporary sources of uniform information.

The first part of the article should, I think, be reprinted as a foreword to every book on military costume published in this country, as then, perhaps, all modellers (and authors!) will come to realise the truth of everything Mr Windrow says. The facts he states have previously been obvious to only a very few experts, even authors falling into the traps mentioned in the article. Perhaps now that an author of Mr Windrow's standing has written so superbly concise an article, in a publication with as wide a readership as *Airfix Magazine*, some of the truths about uniform 'accuracy' of the Napoleonic period may sink in! I don't doubt that many other readers will have sent their congratulations to Mr Windrow, but please add mine to the rest!

As the excellent series on Peninsular War figure conversions by Mr Windrow and Gerry Embleton has now ended, I think readers (and modellers) should be encouraged to read some of the many volumes of reminiscence and autobiography written by men who served in this war. Apart from the historical significance, these contain large numbers of descriptions of individual uniforms which could help modellers to produce individual figures.

As an example, how about this for an unusual addition to a diorama built from the Airfix 95th Rifleman kit, taken from the writings of Edward Costello of that regiment?

As a punishment for defaulters, Colonel Beckwith of the 1st Battalion of the 95th at the time of the Peninsular War, compelled miscreants to drag a ball and chain from the ankle to indicate that they were undergoing punishment. One frequent offender, Rifleman Tom Crawley, merely tucked the six-pound ball under his arm and strolled around the town without it causing him the slightest inconvenience. Beckwith, wishing it made obvious that Crawley was undergoing punishment, instructed that the most incorrigible offenders were to wear an agricultural smock frock over their uniform, with a large green cross painted on both back and front. But Crawley found a way of turning this to his advantage and (presumably) arousing the sympathy of the local civilians, by explaining his strange 'uniform' as 'the new regulation of the Duke of York, and mustn't all the likes of me, that ere Catholics in our regiment, wear the cross on their dress'!

P. J. Heythornthwaite, Nelson, Lancs.

Contributions

Letters to the editor selected for publication entitle the senders to each receive a free Airfix plastic construction kit, and the publication of photographs from readers is similarly rewarded. Airfix Products Ltd award the kits on the following scale:

ONE letter or photograph published is rewarded by any kit from Series 1-6 inclusive. For TWO letters or photographs any one kit up to and including Series 9 can be chosen, or alternatively two kits up to Series 6. For THREE contributions the entitlement is one kit up to Series 12 or three kits up to Series 6. Readers can make their choice on the special form which we send out after publication. The kits are supplied direct by Airfix Products Ltd.

Letters to the editor should be addressed to: the Editor, *Airfix Magazine*, Bar Hill, Cambridge, CB3 8EL. If a reply is wanted, a stamped addressed envelope (or International Reply Coupon) should be enclosed. All photographs submitted for consideration should be clearly labelled with the sender's name and address on the back of each.

Opinions expressed by correspondents on this page are their own and do not necessarily reflect the views of the Editor or Airfix Products Ltd.

Exeter wargames

EXETER UNIVERSITY Wargaming Society is holding a convention on Saturday/Sunday January 17-18 1976 at Devonshire House, Exeter University. It will take place between 11 am and 10.30 pm on Saturday and 10 am and 8 pm on Sunday. There will be three sections, each dealing with either Ancient, Napoleonic or Modern periods. These will include set battles and other items of interest in each period. If you wish to attend please contact Mike Bradford, Crossmead Hall, Exeter University, Exeter, stating when you expect to arrive, if you require a game and in which period, and if you require accommodation (available 16th, 17th and 18th). A self-addressed, stamped envelope should be enclosed.

Easibinders

WILL ALL READERS intending to order *Airfix Magazine Easibinders* please note that, from the January issue, the page size of *Airfix Magazine* will be increased to A4 (11¼" x 8¼"), and new Easibinders will next year be made available to suit the new size. These larger Easibinders will take the present size magazines, but not vice versa. If you want an Easibinder for your Volume 17 or 1976 issues, therefore, please order the new size in January. Limited stocks of the old-size Easibinders will remain available for some time, but if you have any unbound volumes order your old-size binders now to avoid disappointment.

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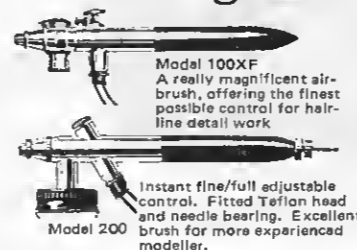
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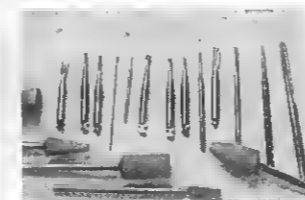
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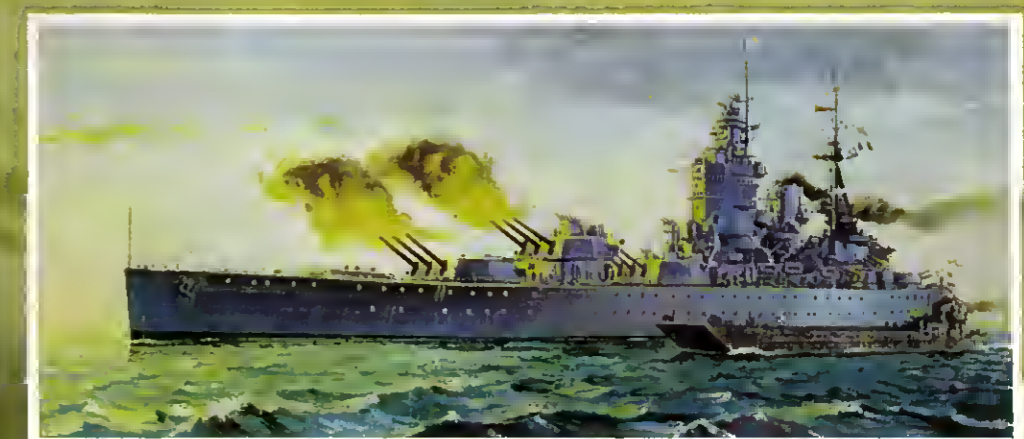
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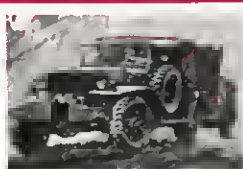
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Printed in England by Blackfriars Press Ltd., Leicester